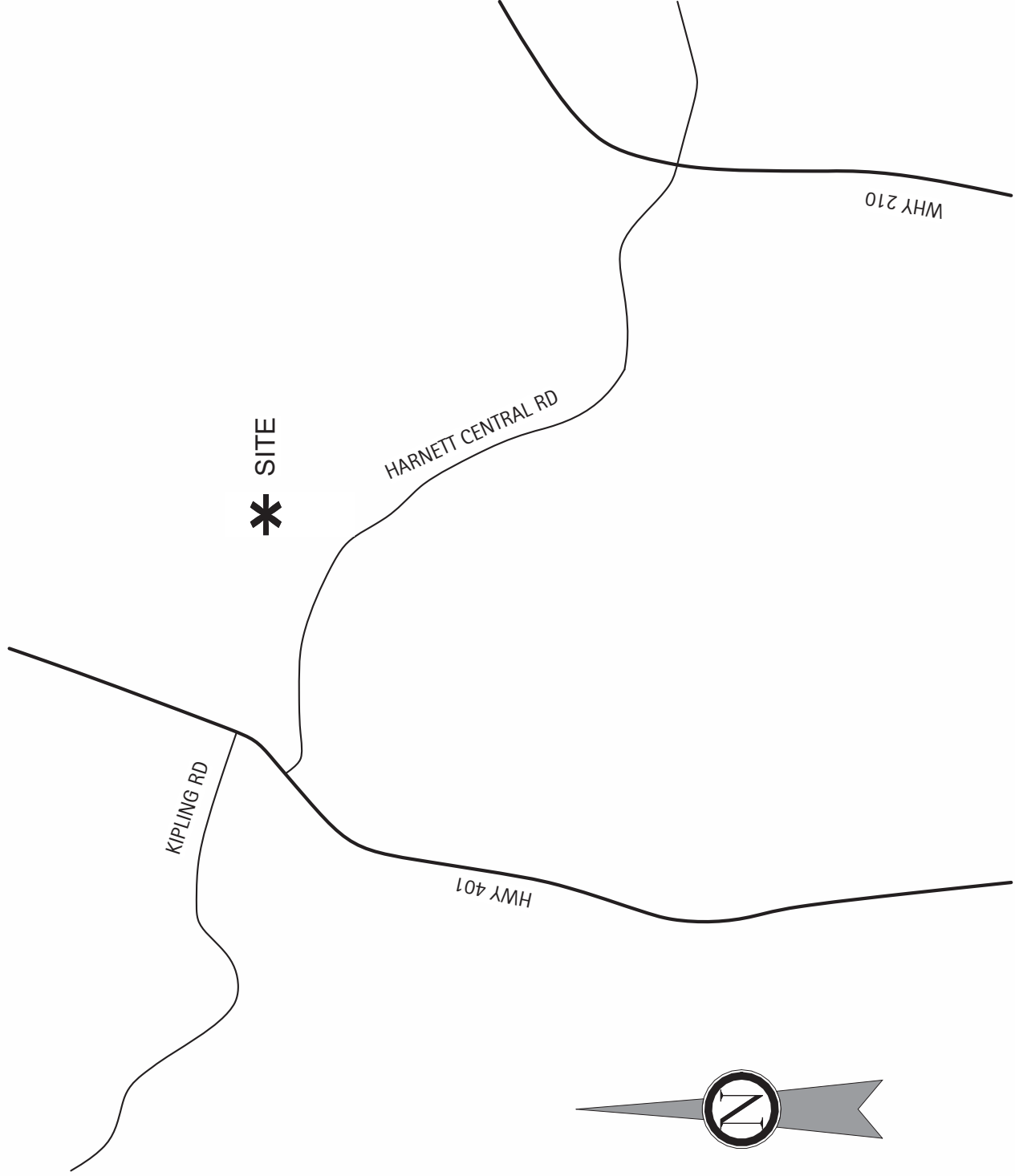
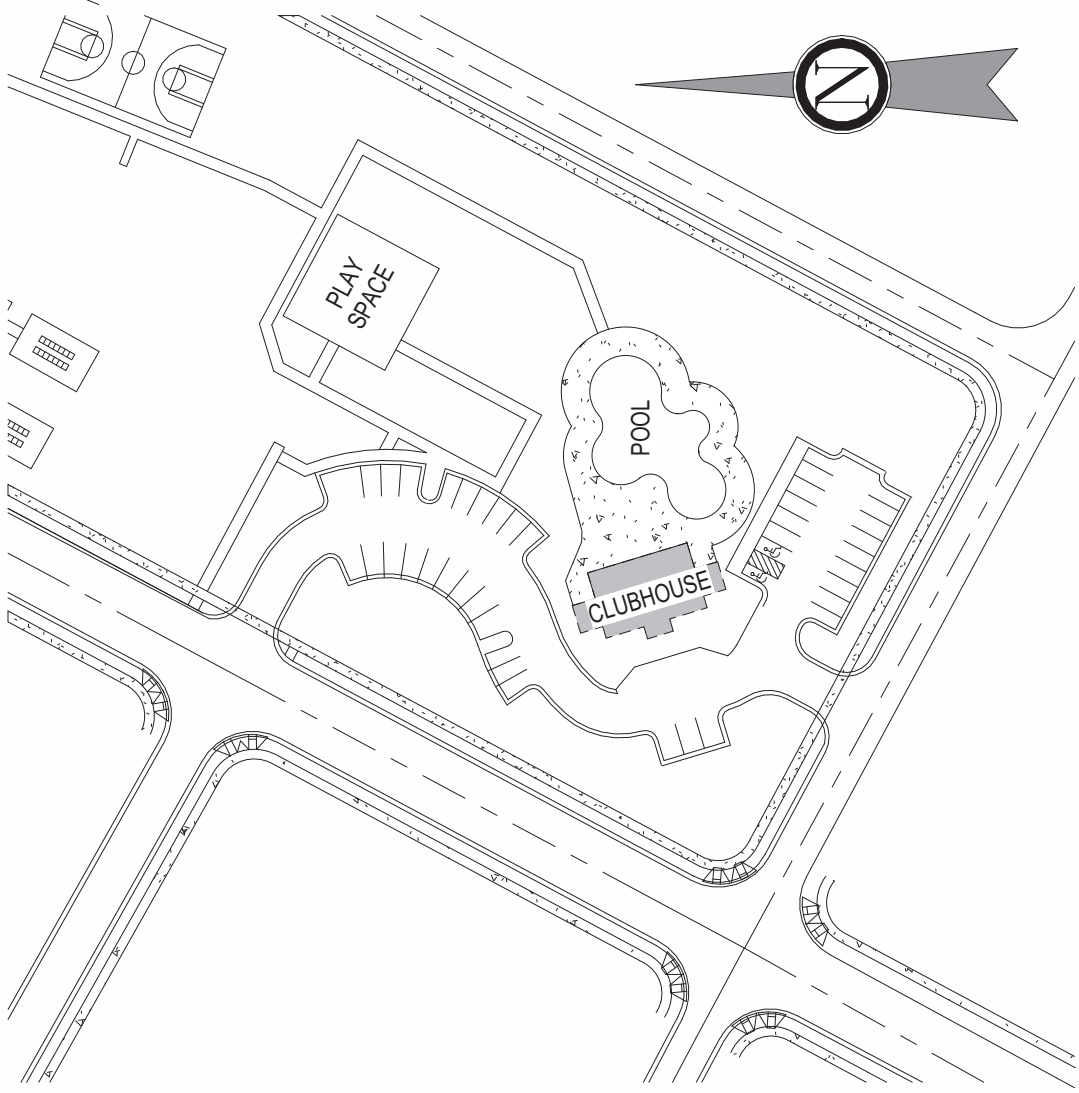


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CLUBHOUSE & POOL LILLINGTON, NC



VICINITY MAP



SITE MAP

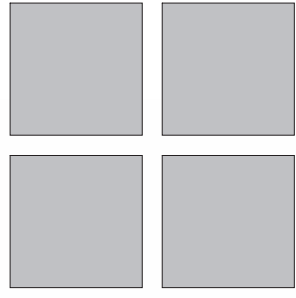
DRAWING INDEX												
SHEET NUMBER	SHEET NAME	REV 01	REV 02	REV 03	REV 04	REV 05						
0-GENERAL												
G0.1	COVER SHEET											
G0.2	BUILDING CODE SUMMARY											
G0.3	LIFE SAFETY PLAN											
G0.4	GENERAL NOTES											
1-CIVIL												
C0.0	COVER SHEET											
C2.0	OVERALL SITE PLAN											
C2.2	DETAILED SITE PLAN											
C3.0	OVERALL UTILITY PLAN											
C4.2	DETAILED GRADING PLAN											
C5.2	DETAILED PLANTING PLAN											
2-ARCHITECTURAL												
A1.0	FOUNDATION PLAN											
A1.1	MAIN LEVEL PLAN											
A1.2	ATTIC PLAN											
A1.3	REFLECTED CEILING PLAN											
A1.4	ROOF PLAN											
A2.0	EXTERIOR ELEVATIONS											
A2.1	EXTERIOR ELEVATIONS											
A3.0	BUILDING SECTIONS											
A3.1	BUILDING SECTIONS											
A3.2	WALL SECTIONS & DETAILS											
A4.0	ENLARGED PLANS & DETAILS											
A5.0	GENERAL BUILDING DETAILS											
A6.0	SCHEDULES & DETAILS											
A6.1	STOREFRONT ELEVATIONS AND DETAILS											
10-STRUCTURAL PLANS												
S1	SLAB AND FOUNDATION PLAN											
S2	CEILING FRAMING PLAN											
S3	ROOF FRAMING PLAN											
S4	STRUCTURAL NOTES & DETAILS											
13-PLUMBING PLANS												
P1	PLUMBING NOTES & SCHEDULES											
P2	PLUMBING PLANS & RISERS											
15-MECHANICAL												
M1	MECHANICAL PLAN											
16-ELECTRICAL												
E1	ELECTRICAL NOTES & SCHEDULES											
E2	LIGHTING AND POWER PLANS											
E3	POWER RISER AND PANEL SCHEDULE											
17-POOL												
SP1.0	CONTROL JOINT & DIMENSION											
SP2.0	OVERALL POOL LAYOUT PLAN											
SP3.0	PIPING & ELECTRICAL PLAN											
SP4.0	SECTIONS & DETAILS											
SP4.1	SECTIONS & DETAILS											
SP5.0	SPECIFICATIONS											
SP5.1	SPECIFICATIONS											
SP5.2	SPECIFICATIONS											



Kilian Engineering, Inc.
115 YOUNG STREET - HENDERSON, NC 27536
P. 252.438.8778
KILLIANENGINEERING.COM

ROSS LINDEN
ENGINEERS P C
709 W. JONES STREET - RALEIGH, NC 27603
TEL 919.832.5680 FAX 919.832.5675
INFO@ROSSLINDEN.COM

D.CLUGSTON
2506 RELIANCE AVE. APEX, NC 27539
(P) 919.629.7290
WWW.DCLUGSTON.COM



Perry Cox
architect, p.a.
207 Hudson Avenue, Apex, NC 27502
P 919.383.5411
www.pcoxdesign.com

D.CLUGSTON



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LILLINGTON, NC

NO. _____

REVISION _____

DATE _____

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DATE ISSUED: 03/24/2025
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CHECKED BY: PCJ/BM
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COVER SHEET

G0.1

BUILDING CLARIFICATION

CORRECT BUILDING ADDRESS:

224 MAGNOLIA CROSSING
FUQUAY VARINA, NC 27526

ALL EXIT DOORS TO HAVE BATTERY
BACK UP EMERGENCY EXIT DEVICES



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LILLINGTON, NC

DATE ISSUED: 08/07/2025

BUILDING
CLARIFICATION

G.01A



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LILLINGTON, NC

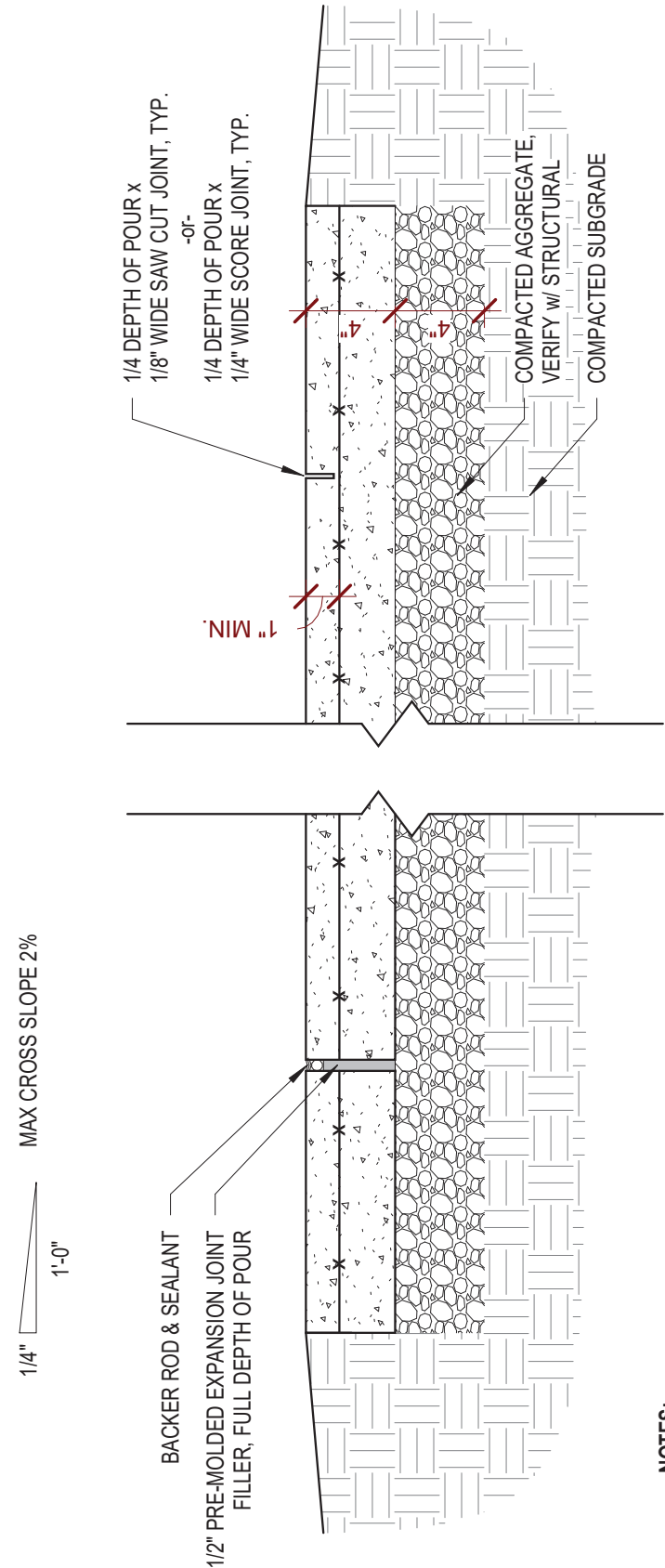
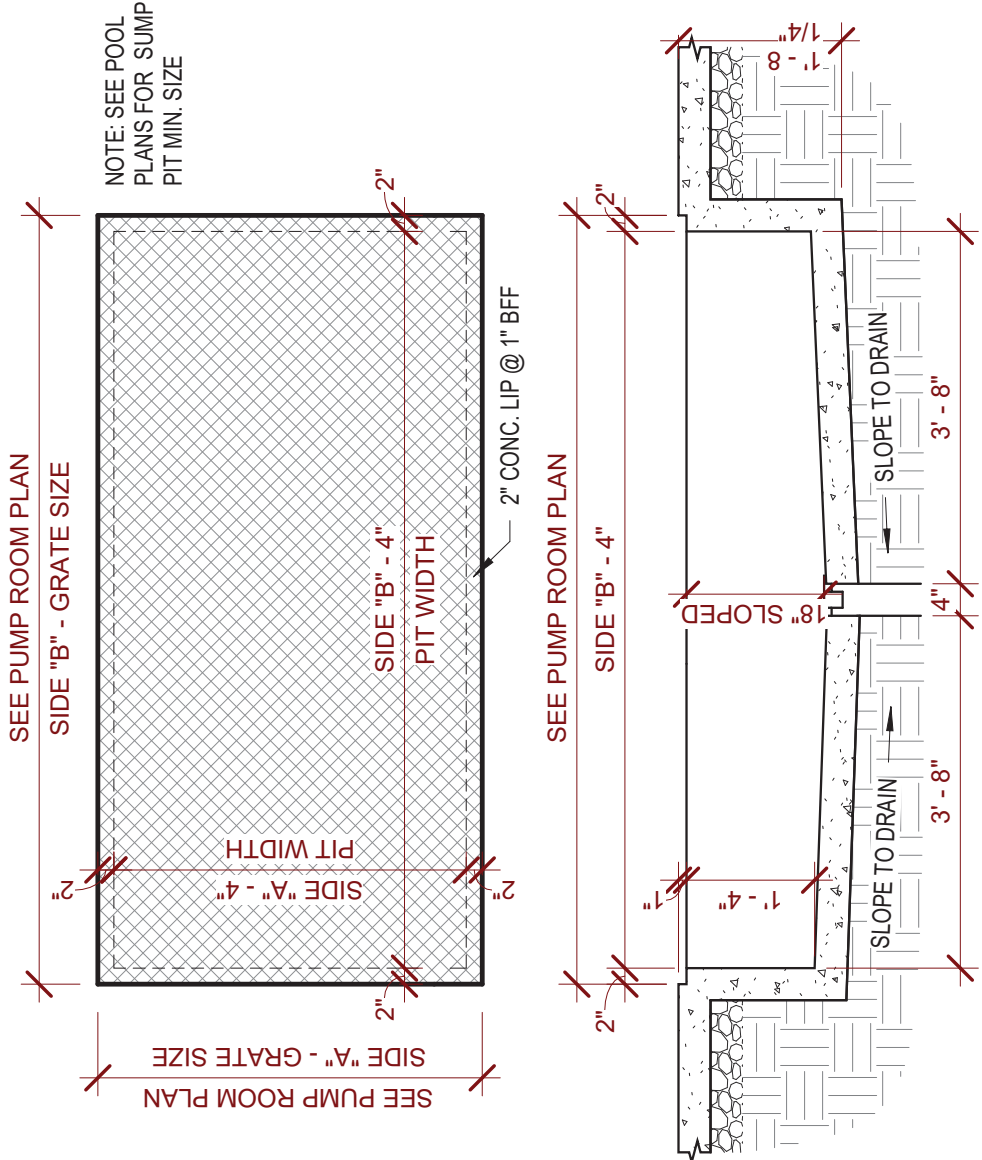
DR HORTON

NO.	REVISION	DATE

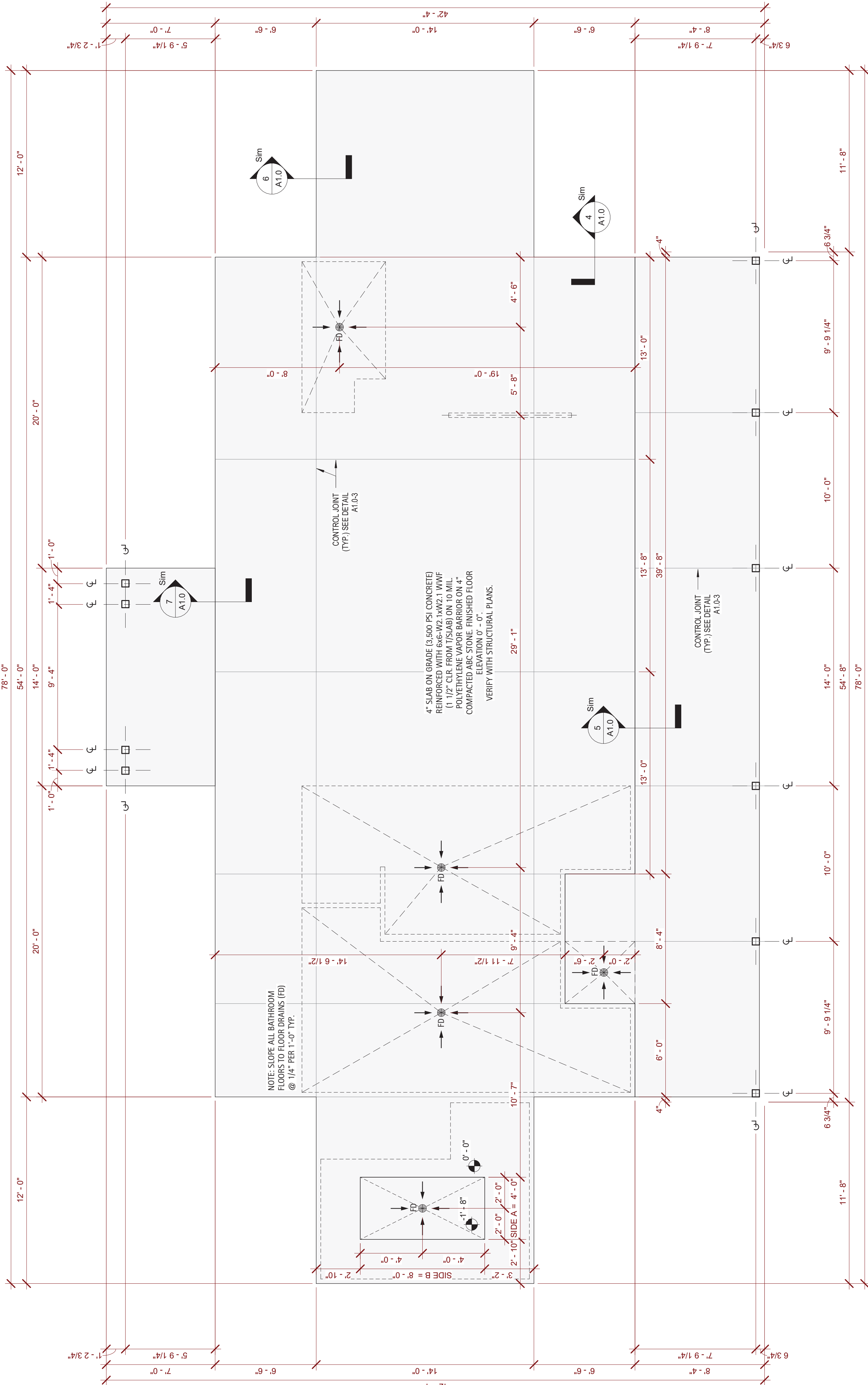
PROJECT #:	2025004
DATE ISSUED:	03/24/2025
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CHECKED BY:	PGC/JGM
100% I.F.P.	

FOUNDATION PLAN

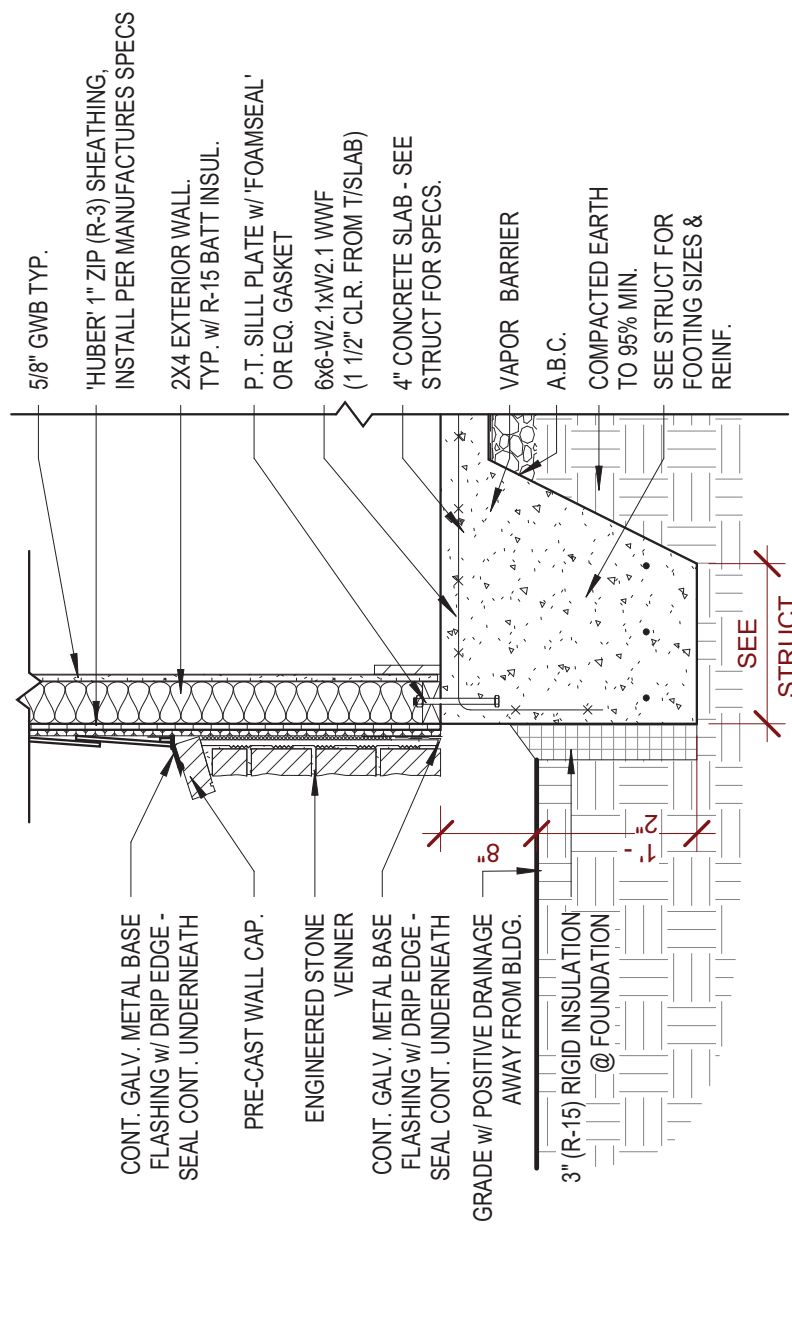
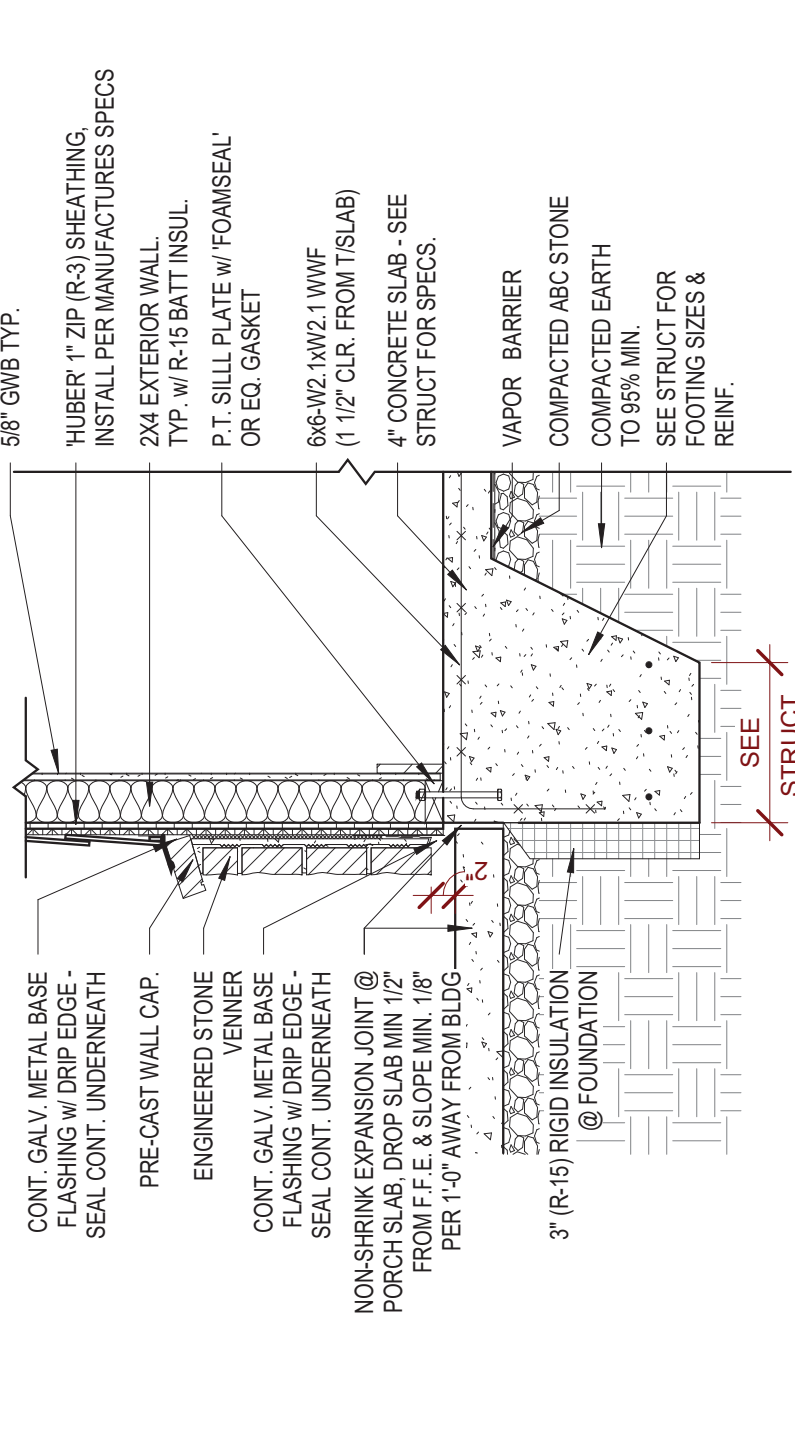
A1.0



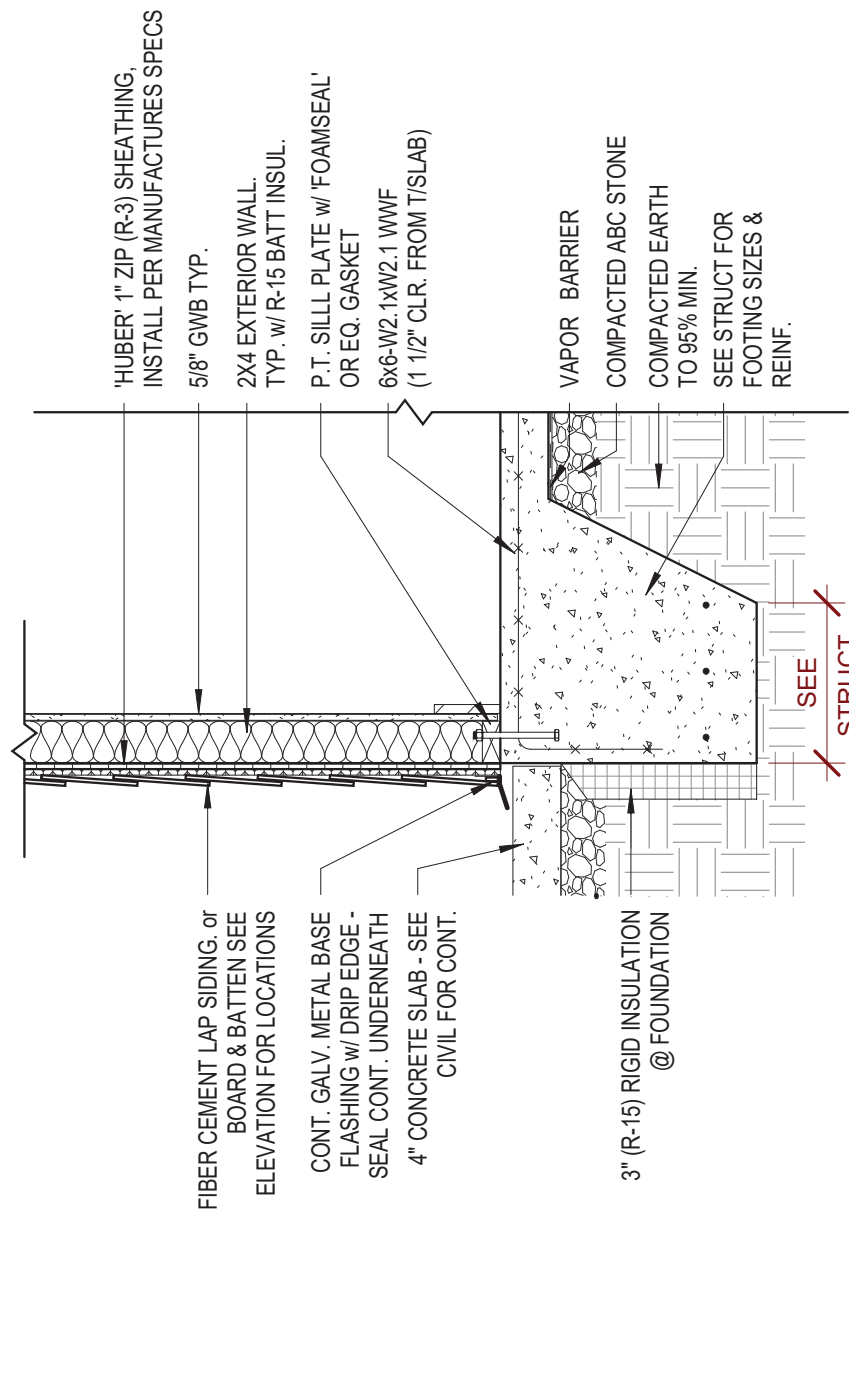
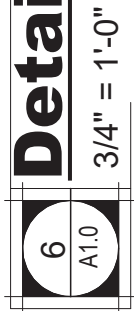
Detail - Sump Pit



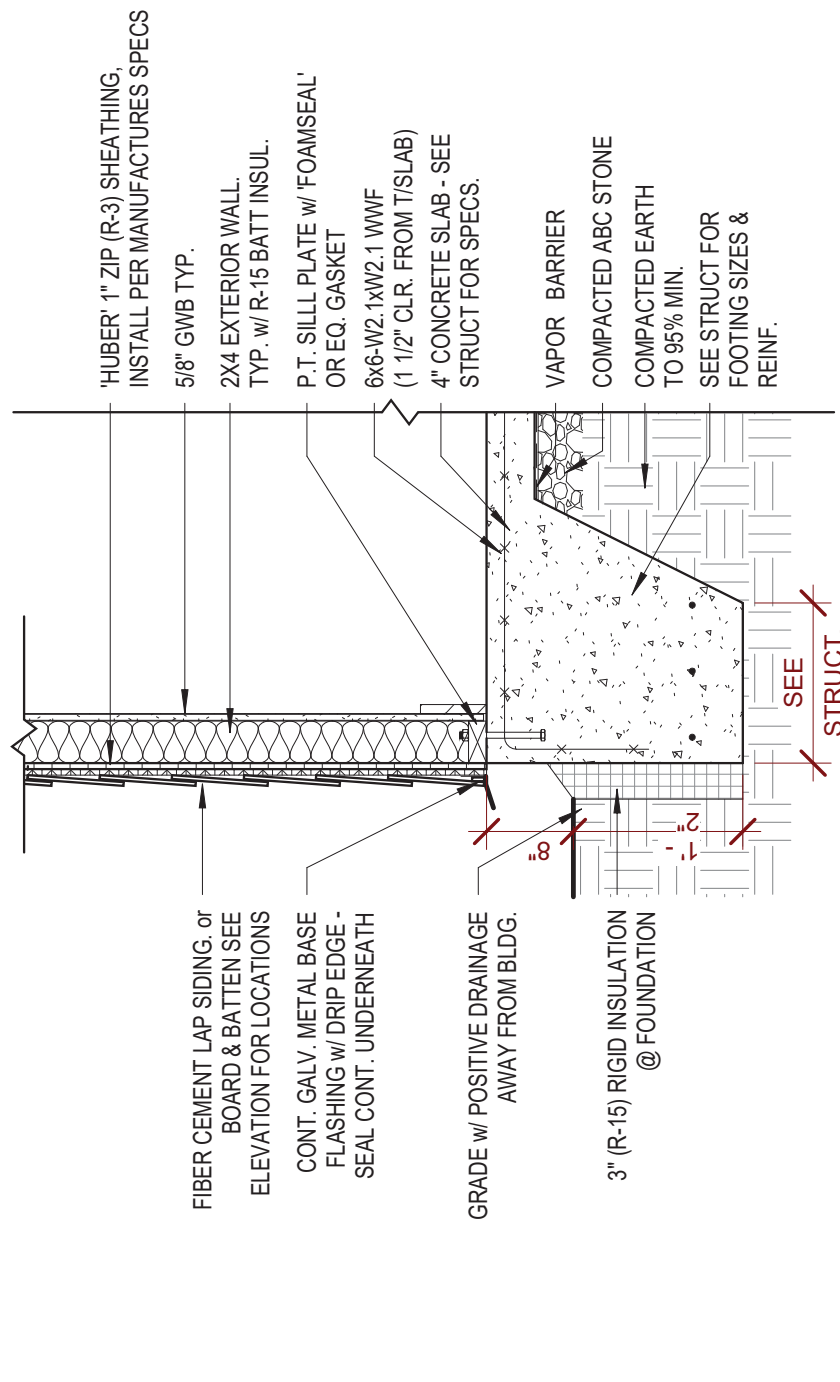
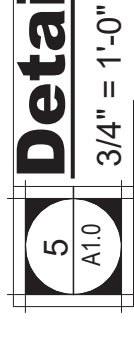
Detail - Typ. Concrete Control Joint



Detail - Stone Veneer @ Grade



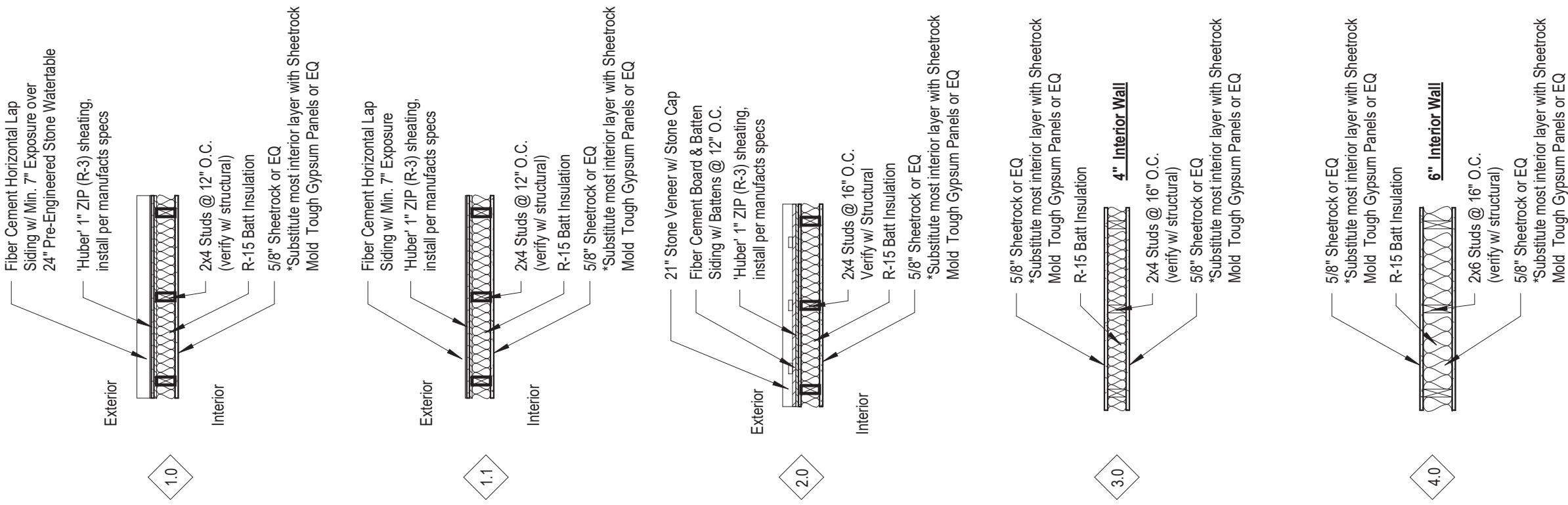
5 Detail - Siding @ Hardscapes



4

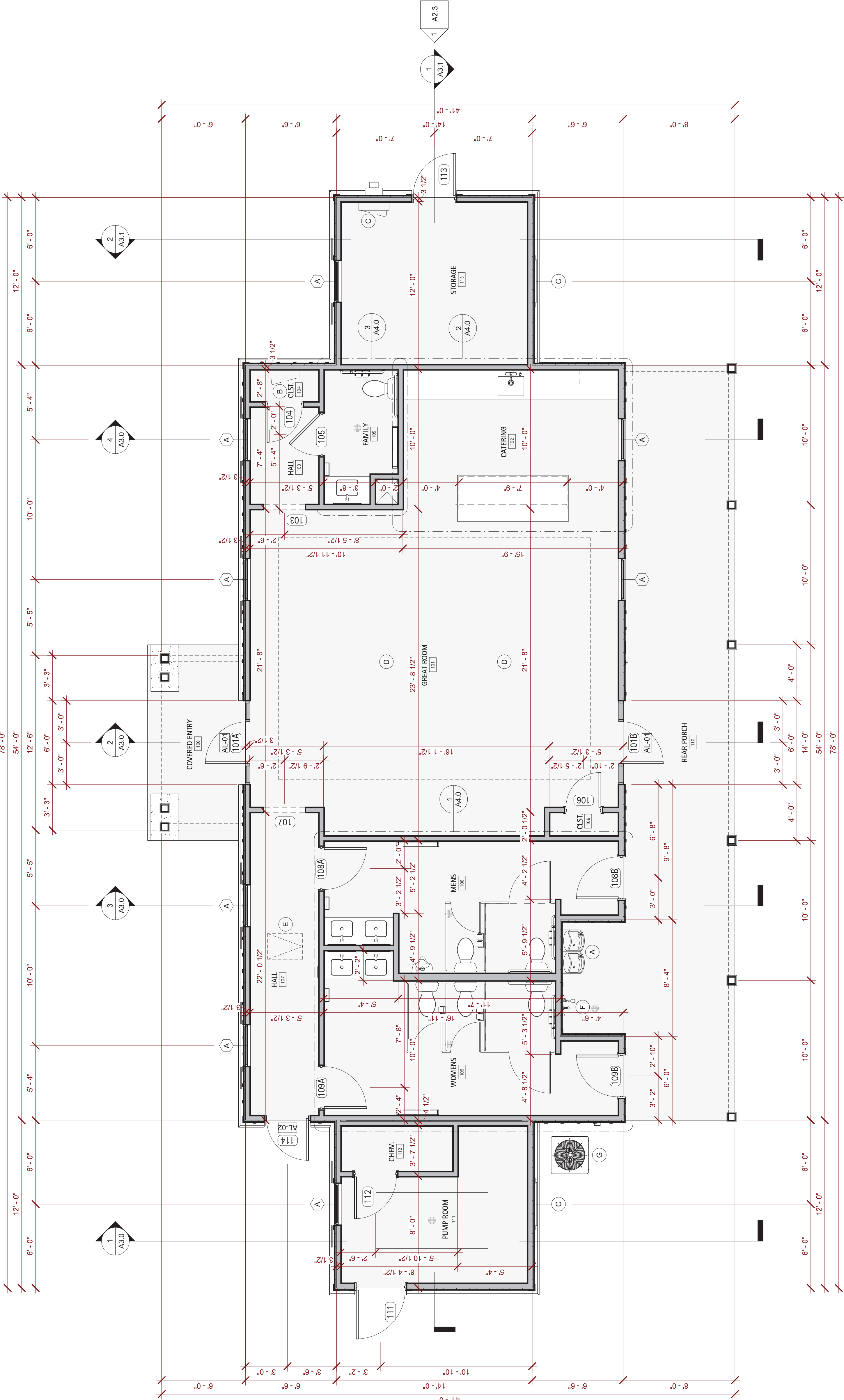
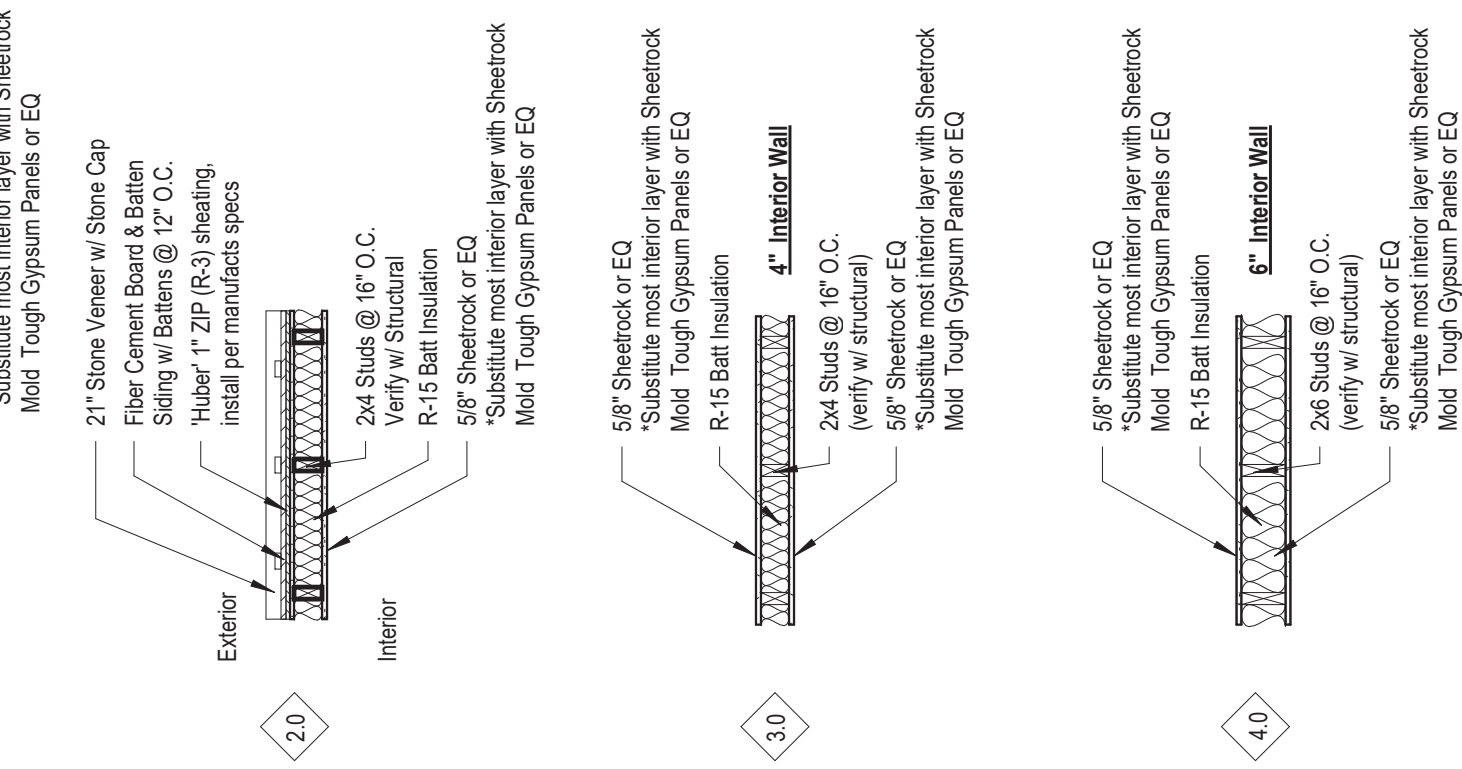


WALL TYPE DETAILS



KEYNOTES

TAG	DISCUPTION	PROVIDED BY
A	HIGH / LOW WATER COOLER. SEE PLUMBING PLANS FOR SELECTIONS. SEE TYPICAL MOUNTING HEIGHT DETAILS.	C.P.C.J
B	LOW VOLTAGE PANEL TO BE INSTALLED ON WALL. CONTRACTOR TO VERIFY LOW VOLTAGE LAYOUT w/ GC PRIOR TO INSTALLATIONS	C.P.C.J
C	METER BASE & PANELS. SEE ELECTRICAL DWGS.	C.P.C.J
D	OPTIONAL FLOOR RECEPTION. SEE ELECTRICAL DWGS. CONTRACTOR TO VERIFY LOCATION w/ GC & OWNER PRIOR TO SLAB INSTALL.	C.P.C.J
E	*BEST ACCESS DOORS: BA-PH 22"x26" OR EQUAL FIRE RATED ACCESS DOOR IN CEILING. COORDINATE LOCATION w/ TRUSS MANUFACTURER	C.P.C.J
F	EXTERIOR RINSE SHOWER UNDER ROOF OVERHANG. SHOWER DRAIN TO DISCHARGE INTO SANITARY. SEE PLUMB DWGS.	C.P.C.J
G	MECHANICAL CONTRACTOR TO VERIFY THAT CONDENSATE LINES DO NOT DISCHARGE OVER HARDSCAPES. IF REQUIRED MC TO TIE DISCHARGE LINES INTO SANITARY.	C.P.C.J



First Floor Plan

1/4" = 1'-0"



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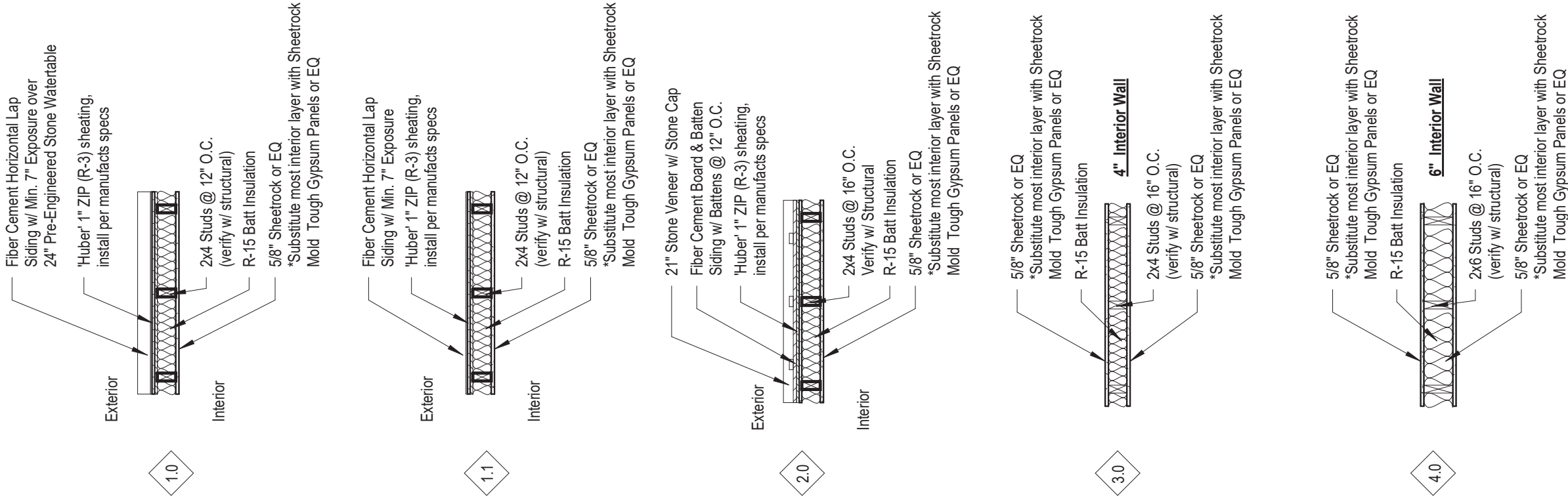
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PROJECT #:	2025004
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MAIN LEVEL
PLAN

A1.1

WALL TYPE DETAILS



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ATTIC PLAN

Attic Plan

ROOF NOTES

1. Roof decks shall be covered with approved roof coverings secured to the building or structure in accordance with the NCSBC. Roof coverings shall be designed and installed in accordance with the building code and the approved manufacturer's instructions.
2. Crickets or saddles shall be installed on the ridge side of any chimney or penetration greater than 30 inches wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or of the same material as the roof covering.
3. Asphalt shingles shall only be used on roof slopes of 2:12 or greater.
4. Roof slopes from 2:12 to 4:12, underlayment shall be two layers applied in the following manner. Apply a minimum 15" wide strip of underlayment felt parallel and overlapping the eaves. Subsequent layers shall be applied perpendicular to the first layer. Starting at the eave, apply 36-inch-wide sheets of underlayment overlapping successive sheets 19 inches minimum and fasten in place.
5. Roof slopes from 4:12 or greater, underlayment shall be a minimum of one layer.
6. Flashing shall be installed at the wall and roof intersections, at gutters, and wherever there is a change in roof slope or direction and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019in (No. 26 galvanized sheet)
7. Areas prone to ice formation along eaves causing a backup of water shall have an ice barrier that consists of at least (2) two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet. Extend ice barrier min. 18" each side of valleys and other ice prone areas..
8. Overhangs: Truss manufacturer to provide shorter gable end trusses where overhangs exceed 1'-0" to allow for outriggers to be framed over the top cord of the end truss and attached to the top cord of the secondary truss towards the interior of the gable. GC to verify prior to manufacturing of trusses.
9. Light Location: Truss manufacturers to coordinate truss layout with reflected ceiling plans, electrical plans, and mechanical plans to avoid conflicts

CEILING LEGEND

- MD - MOTION DETECTOR
LOCATE IN CEILING

FL - EXTERIOR FLOOD LIGHT

EE - EMERGENCY EXIT SIGN w/ SPOTLIGHTS

EL - EMERGENCY LIGHT w/ BATTERY BACKUP

EF - EXHAUST FAN

A - NOT USED

B - NOT USED

C - 6" I.E.D. CAN LIGHT

C1 - 6" LED. CAN LIGHT w/ BATTERY BACKUP

D - 1'x4' TROFFER LIGHT

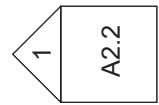
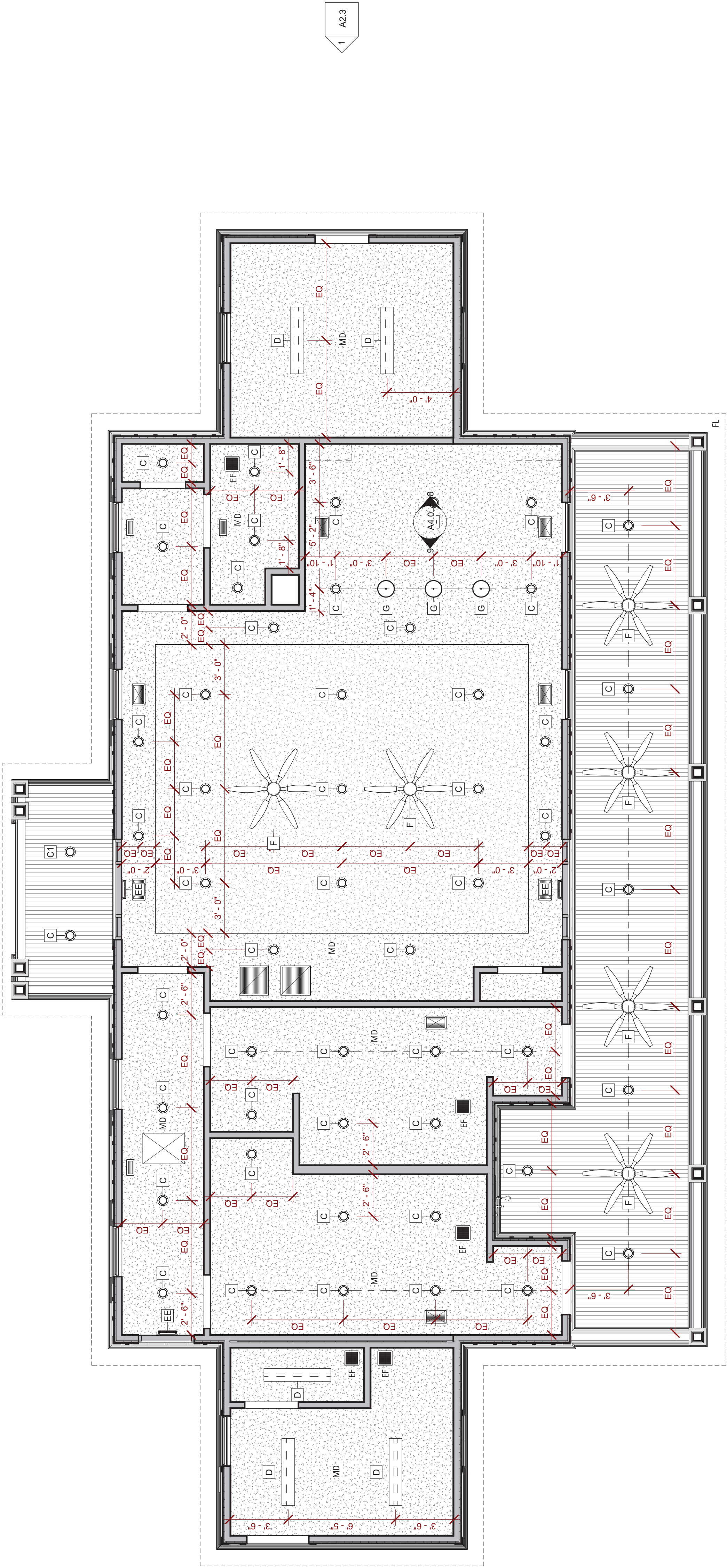
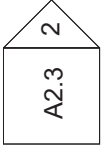
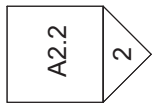
E - EXTERIOR 72" DIA. FAN w/o LIGHT KIT

F - FAN w/o LIGHT KIT
- CEILING MOUNTED SUPPLY
REGISTER, SEE MECH. PLANS
FOR SIZING

CEILING MOUNTED RETURN
REGISTER, SEE MECH. PLANS
FOR SIZING

*VERIFY ALL SELECTIONS
WITH OWNER / GC PRIOR TO ORDER

*VERIFY ATTIC ACCESS LOCATIONS WITH
APPROVED TRUSS LAYOUTS AND PROFILES



1 A1.3 1/4" = 1'-0"

Reflected Ceiling Plan

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REFLECTED
CEILING PLAN

A1.3





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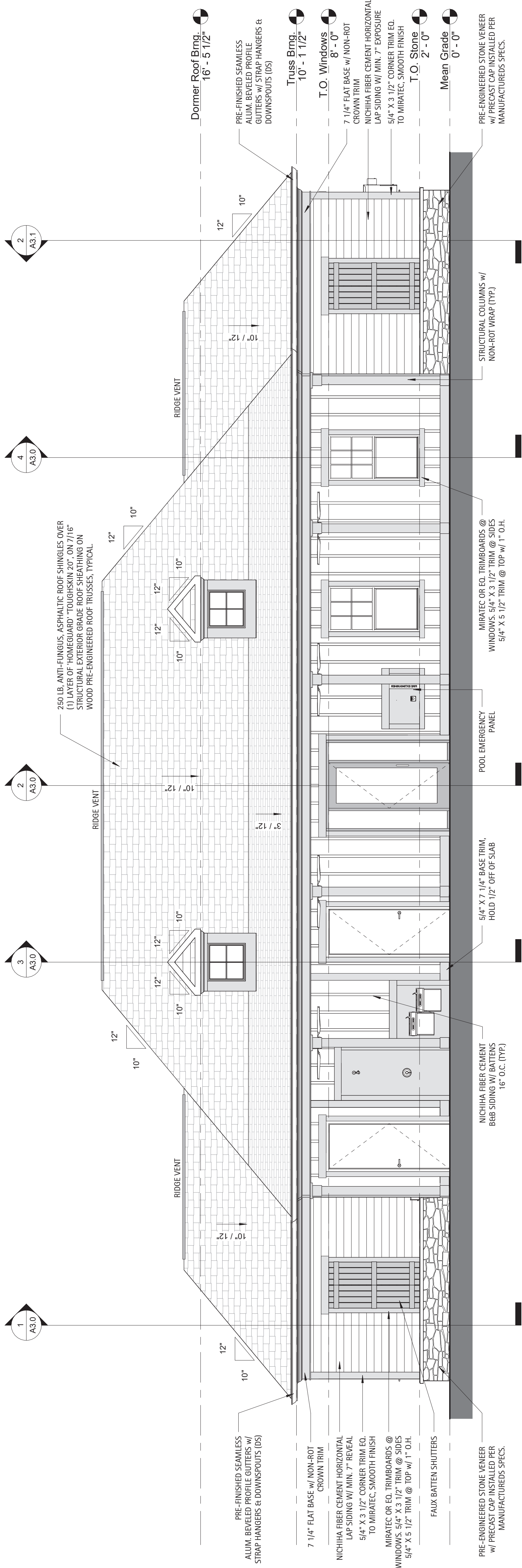
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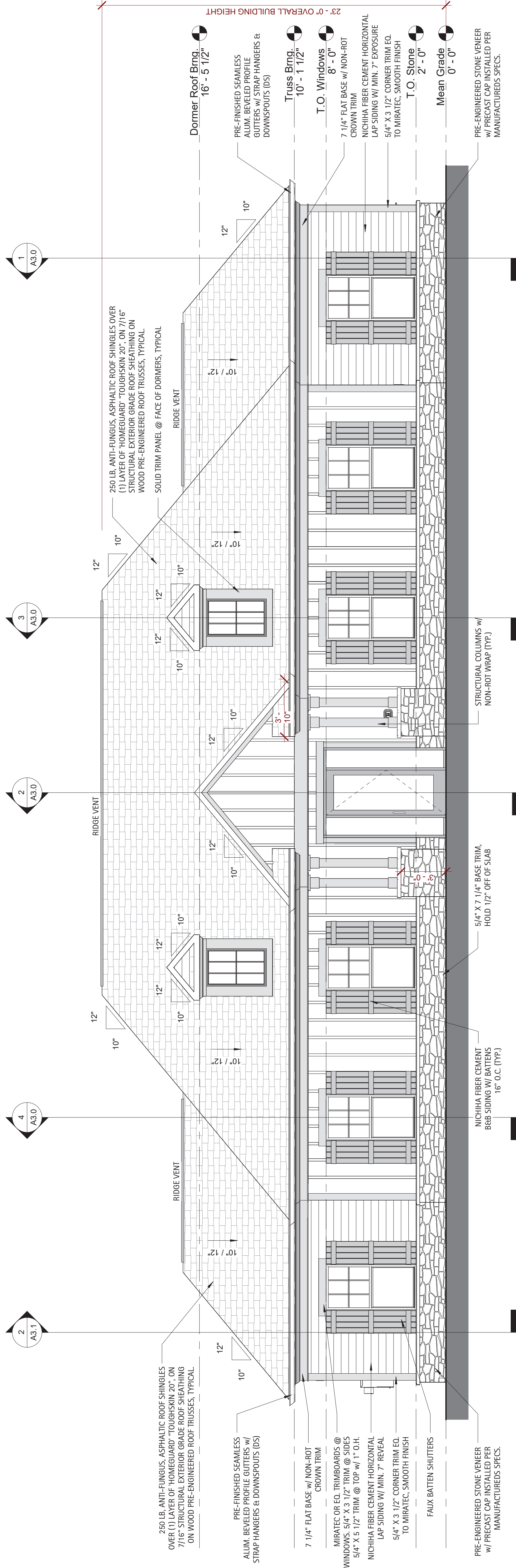
EXTERIOR
ELEVATIONS

A2.0



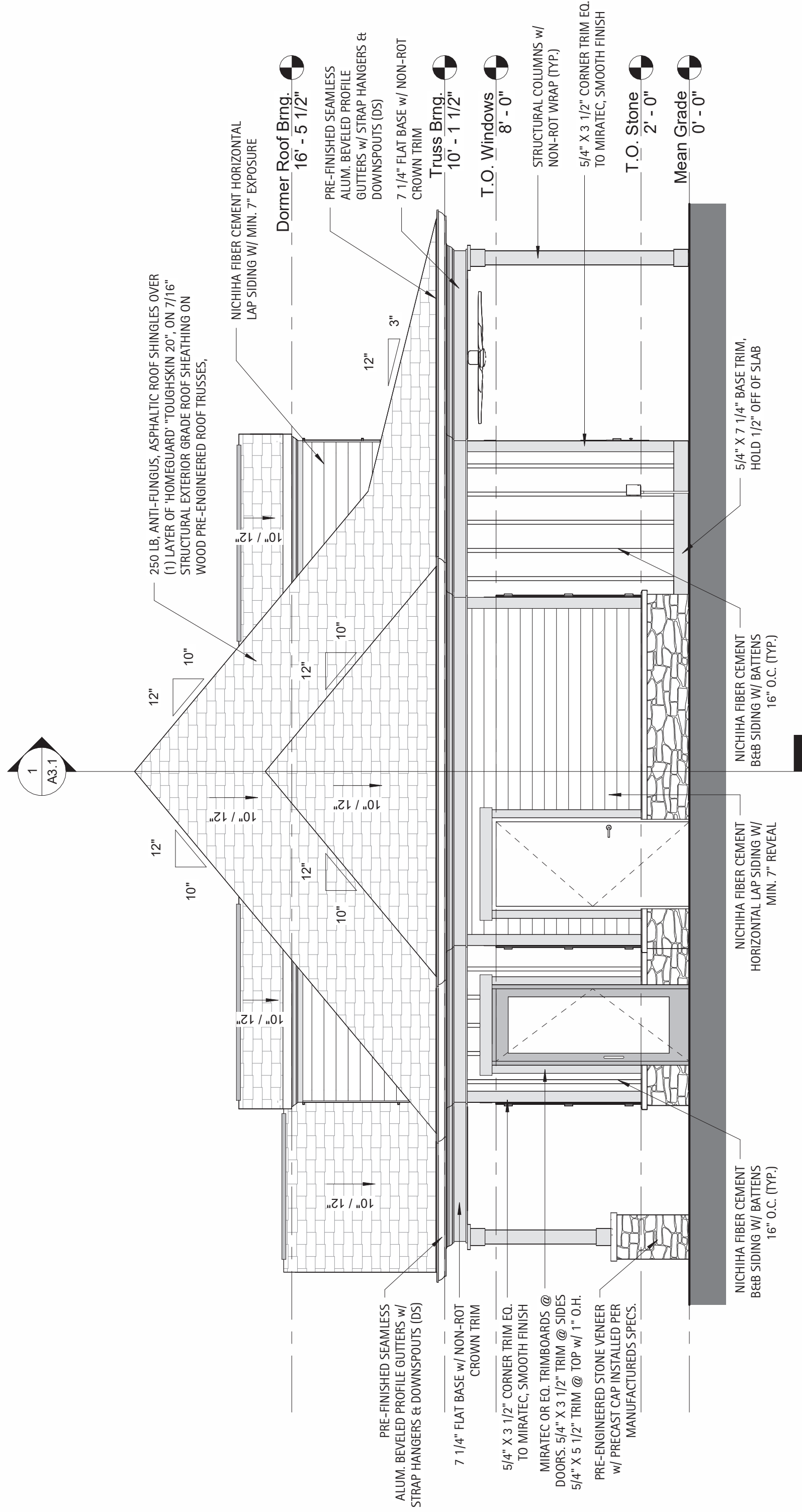
Elevation - Rear

1/4" = 1'-0"

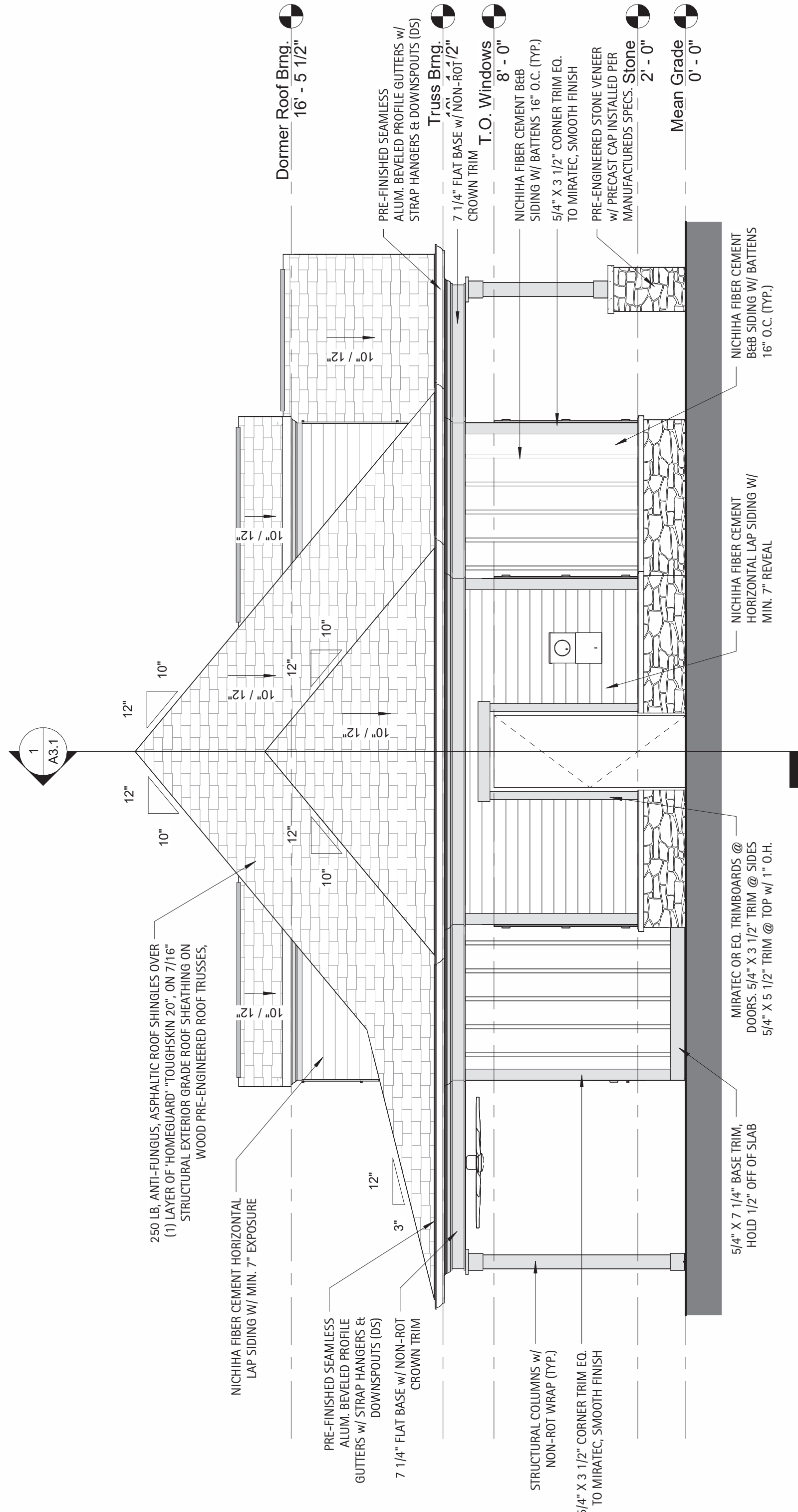


Elevation - Front

1/4" = 1'-0"



Elevation - Left



Elevation - Right



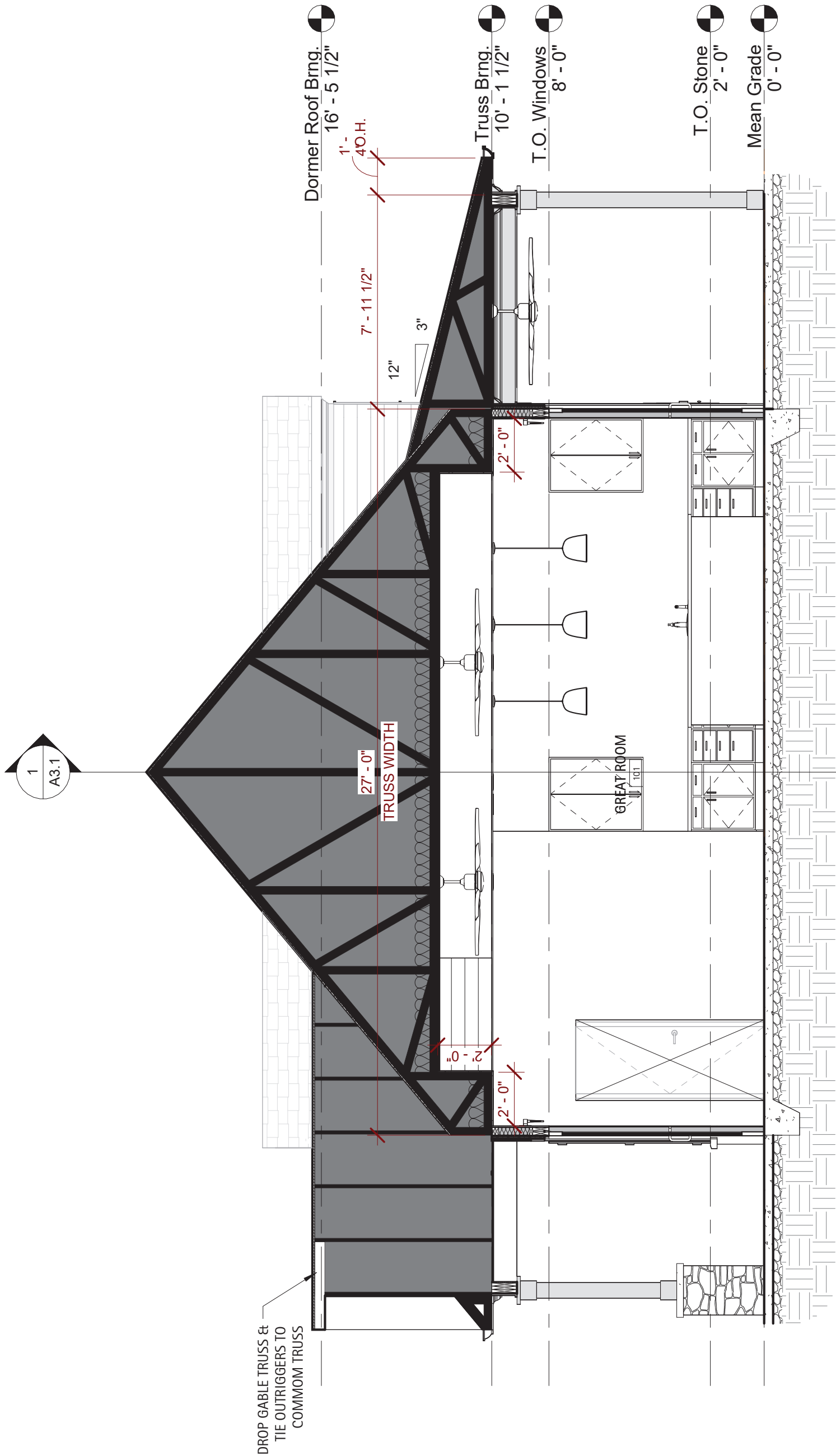


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DATE ISSUED:	03/24/2025	
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CHECKED BY:	PGC/JGM	
	100% I.F.P.	

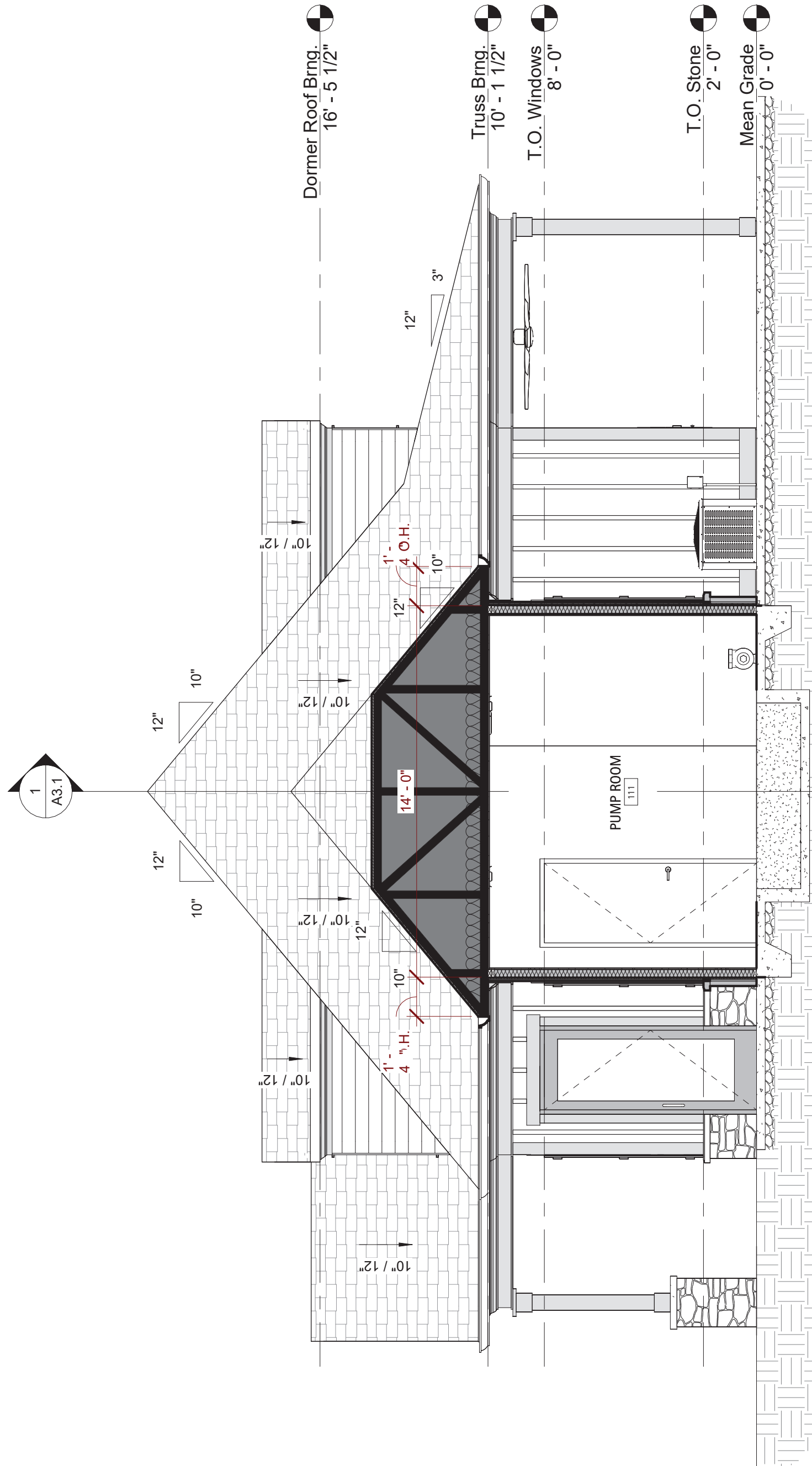
BUILDING
SECTIONS

A3.0



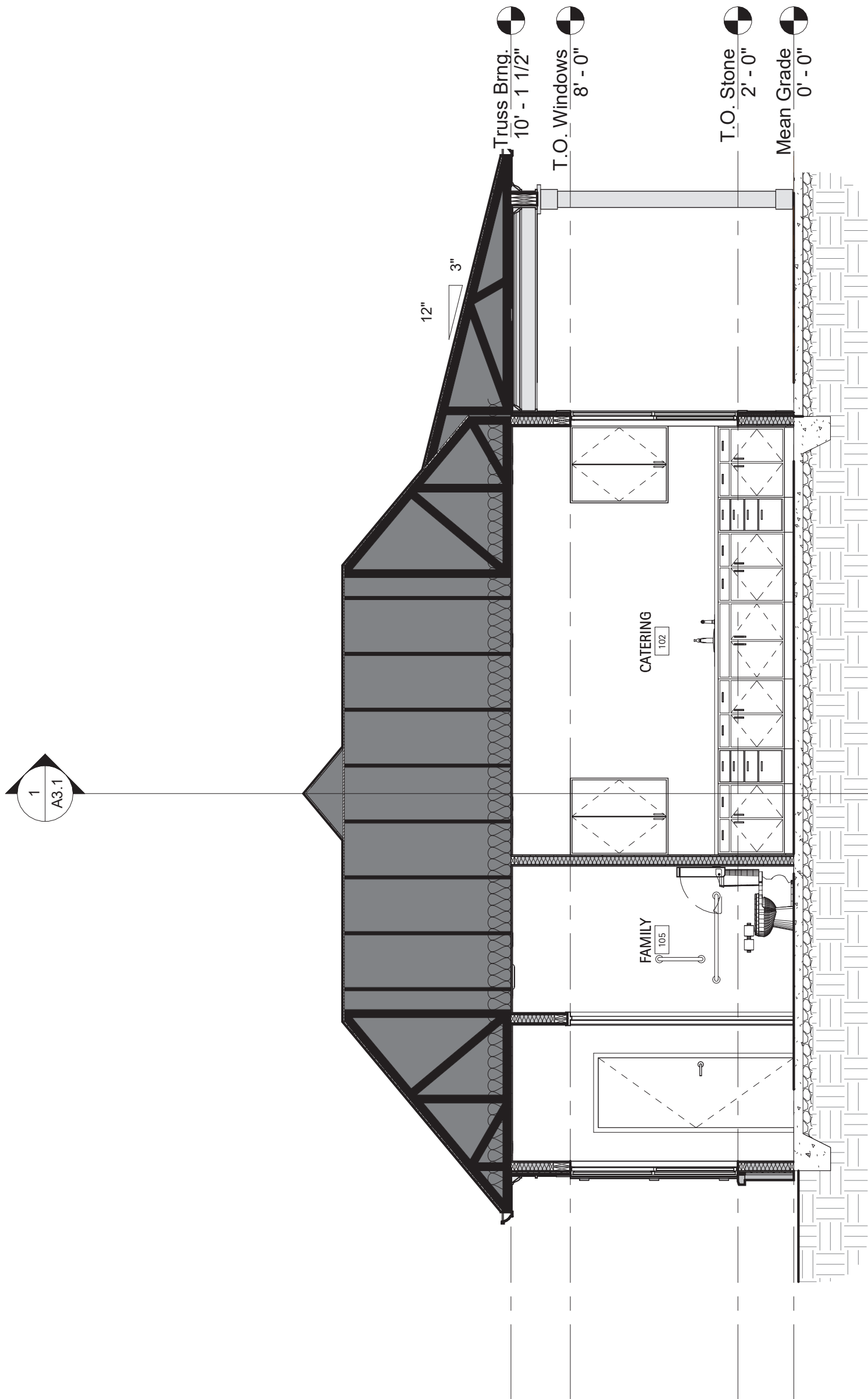
1
A3.0
Through Greatroom

1/4" = 1'-0"



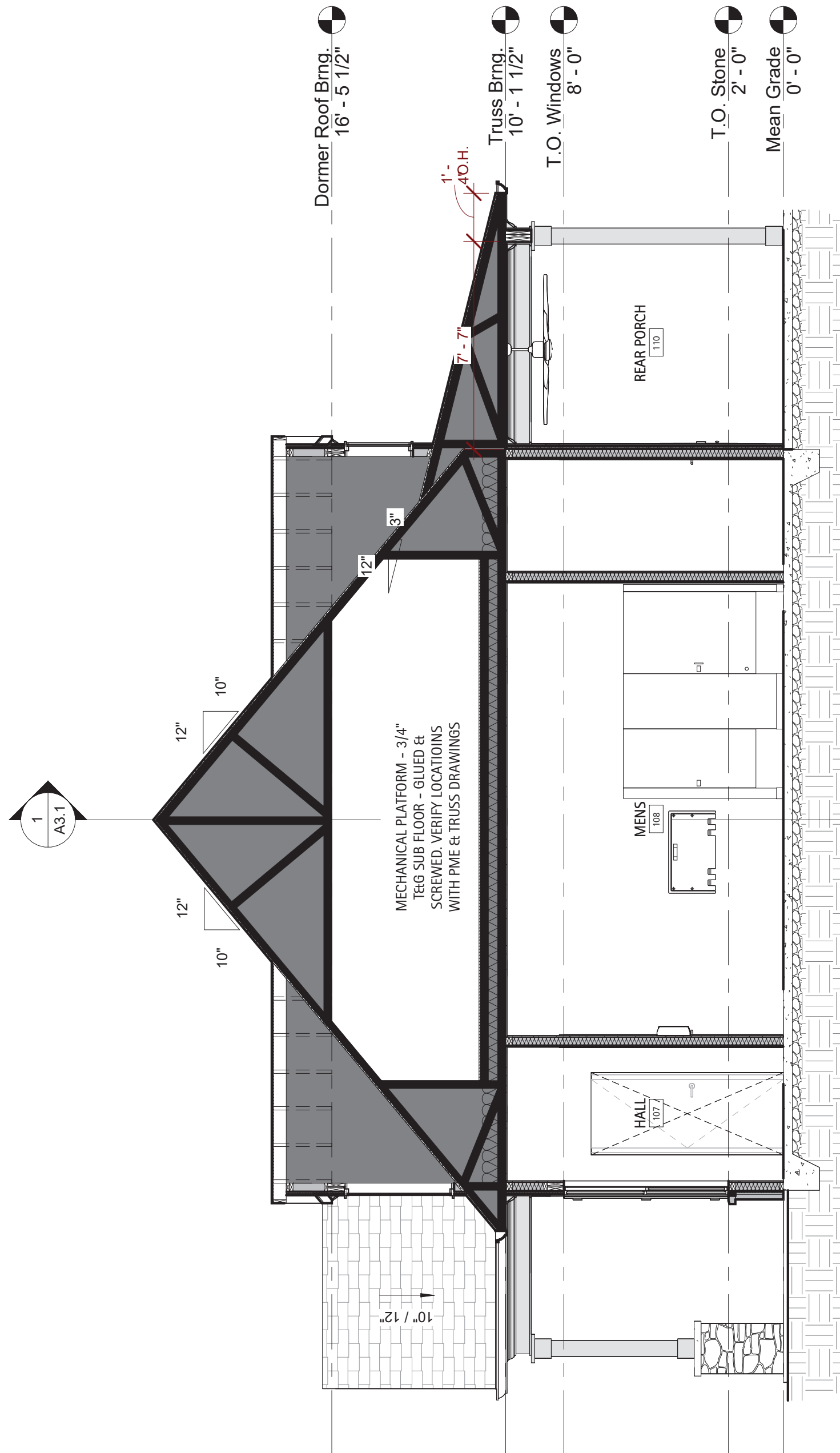
1
A3.0
Through Pump Room

1/4" = 1'-0"



4
A3.0
Through Catering

1/4" = 1'-0"



3
A3.0
Through Dormers

1/4" = 1'-0"



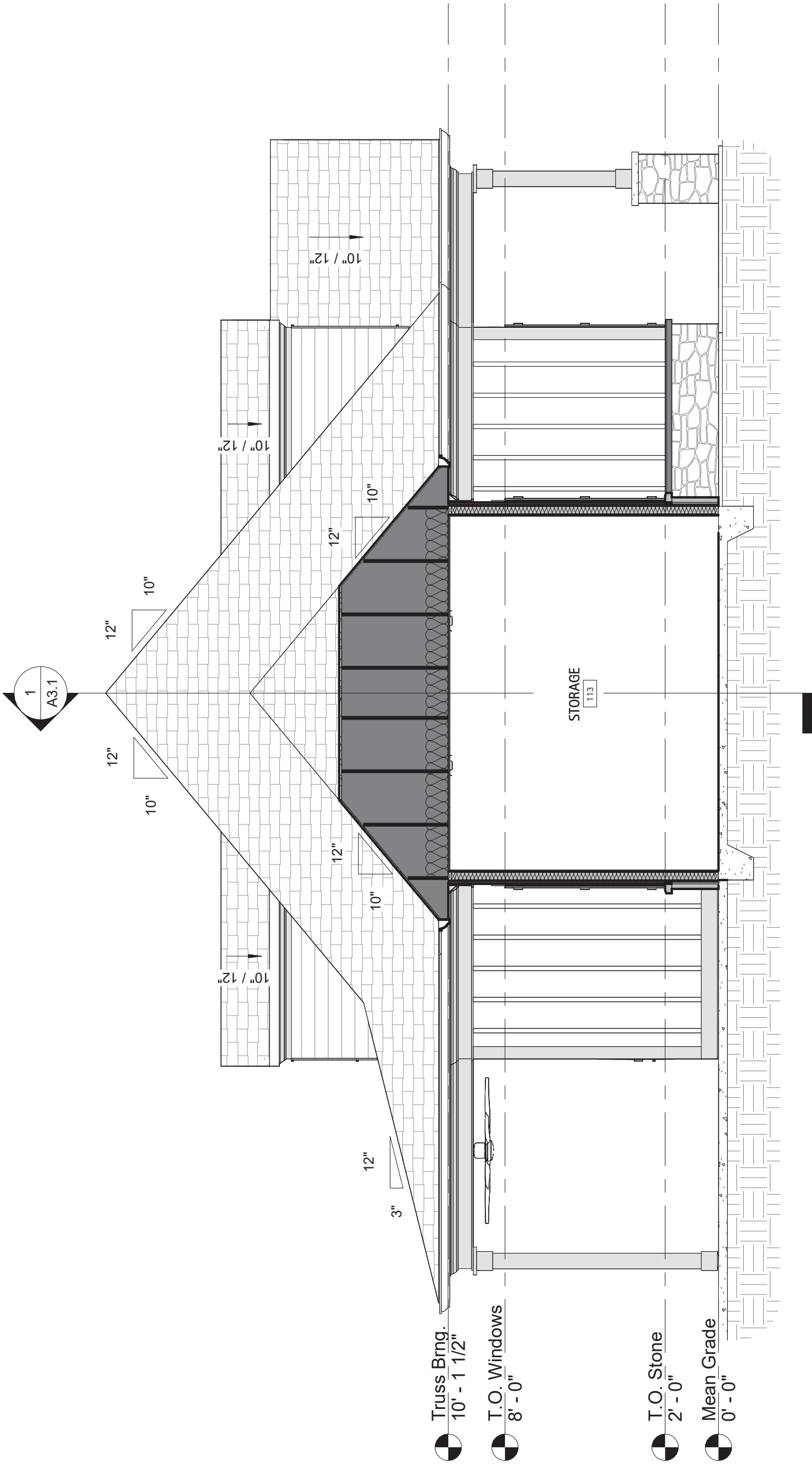
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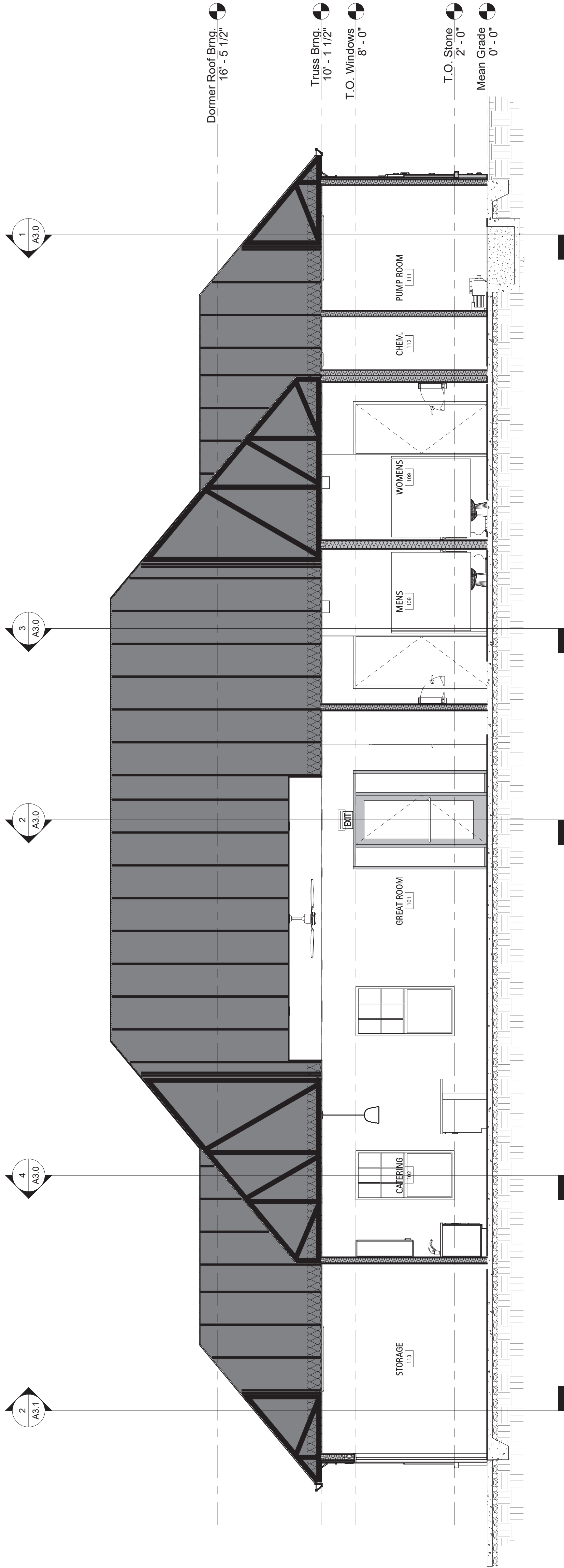
NO.	REVISION	DATE
PROJECT #: 2025004 DATE ISSUED: 03/24/2025 DRAWING BY: LBG CHECKED BY: P6CJGM 100% I.E.P.		

BUILDING
SECTIONS

A3.1



Through Storage Room



Through Main Ridge



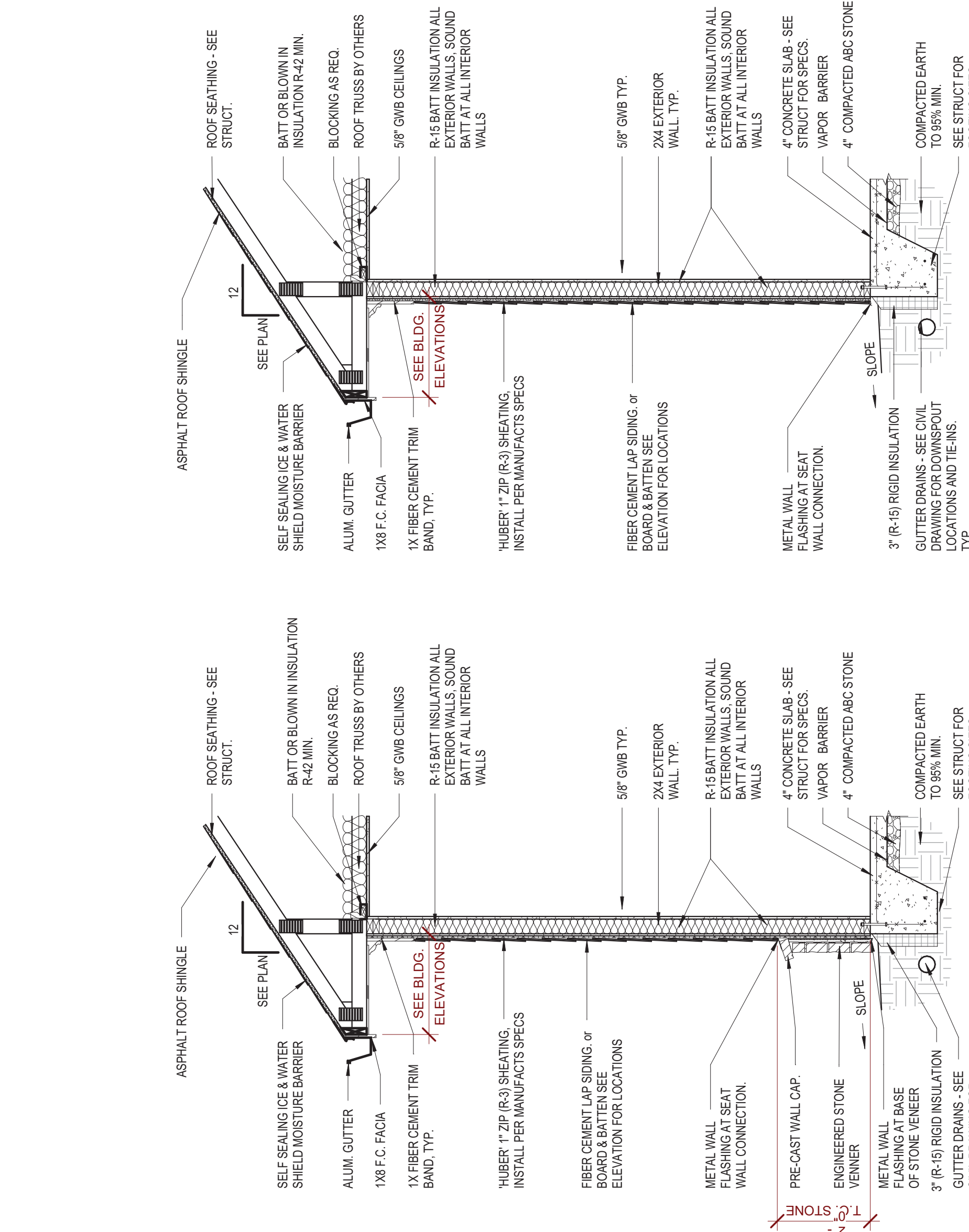
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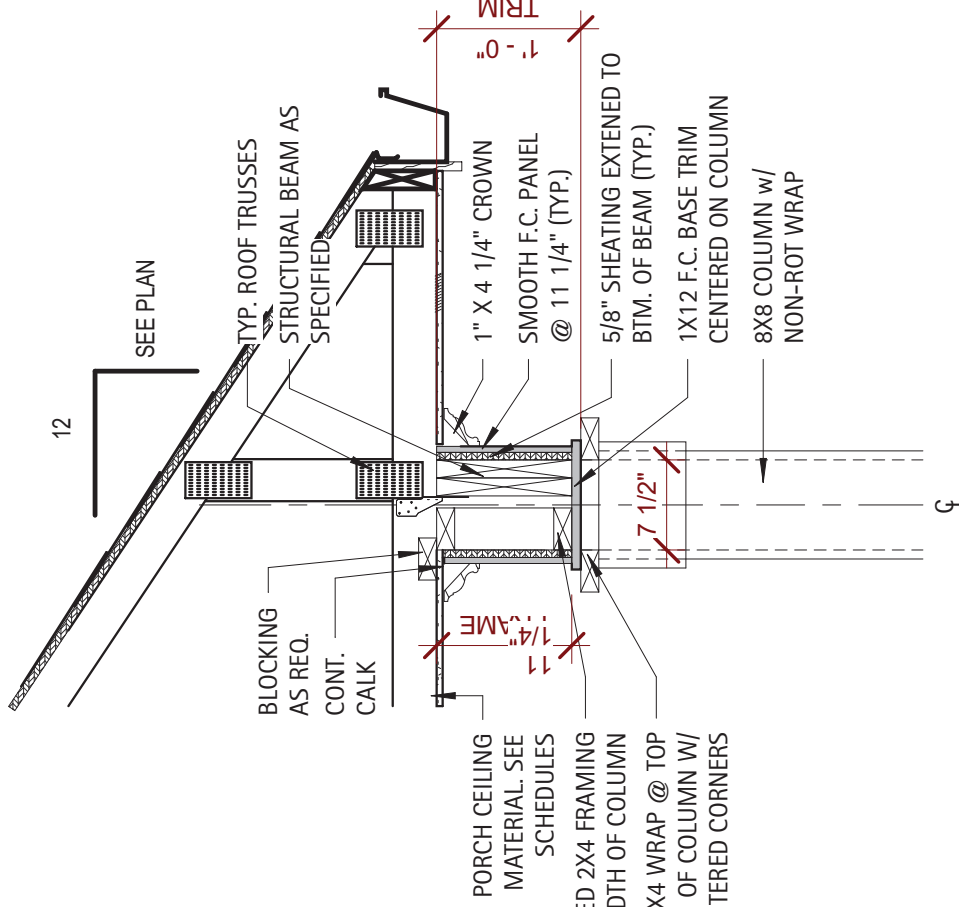
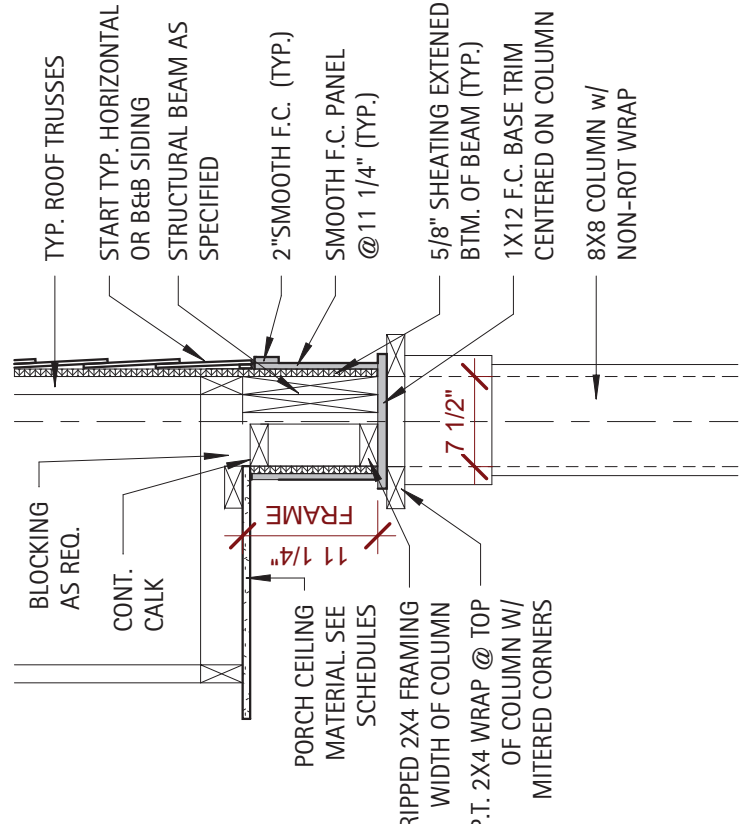
WALL
SECTIONS &
DETAILS

A3.2



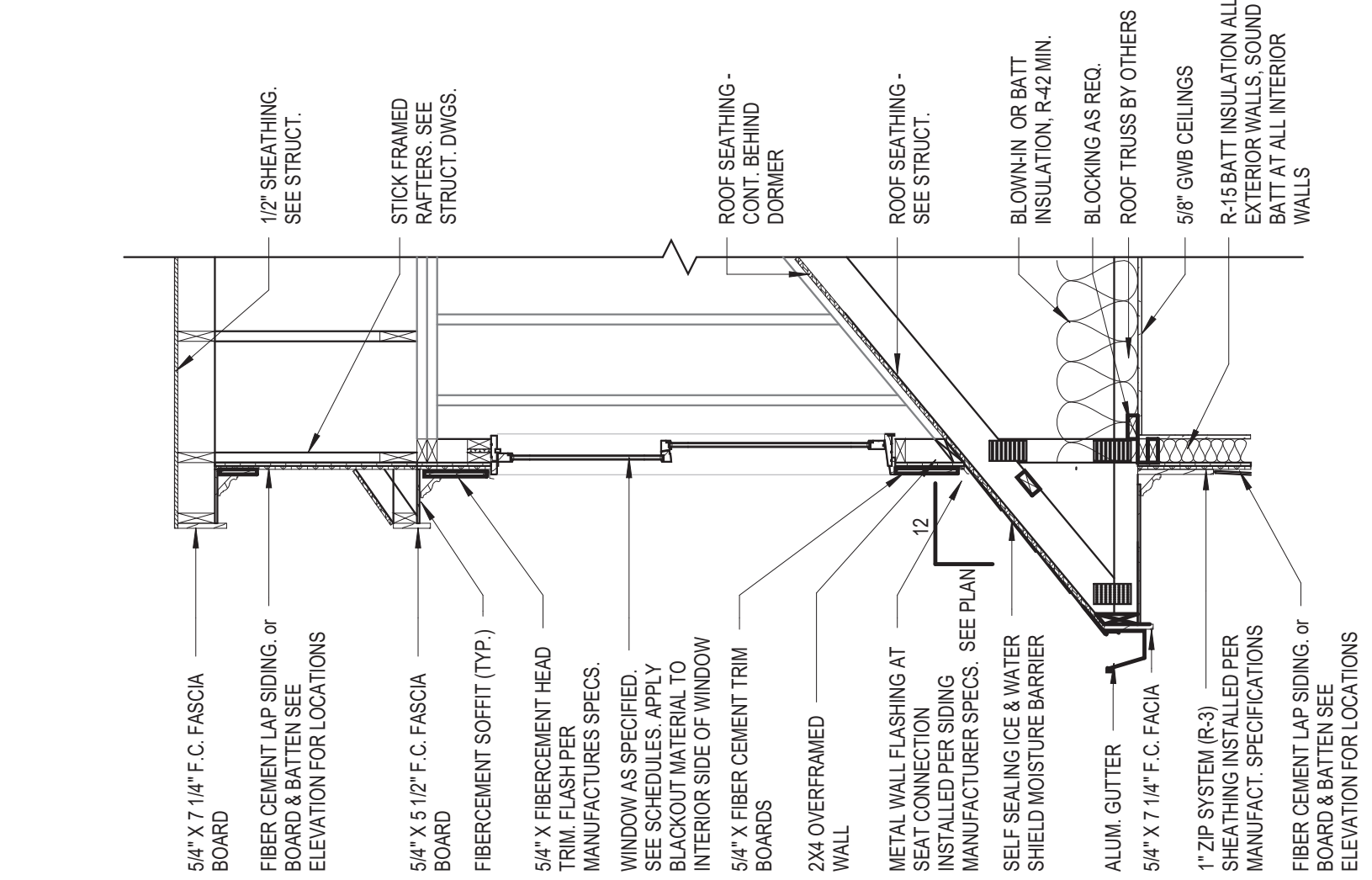
4 Detail - Typ. Trim Band @ Gables

A3.2 3/4" = 1'-0"



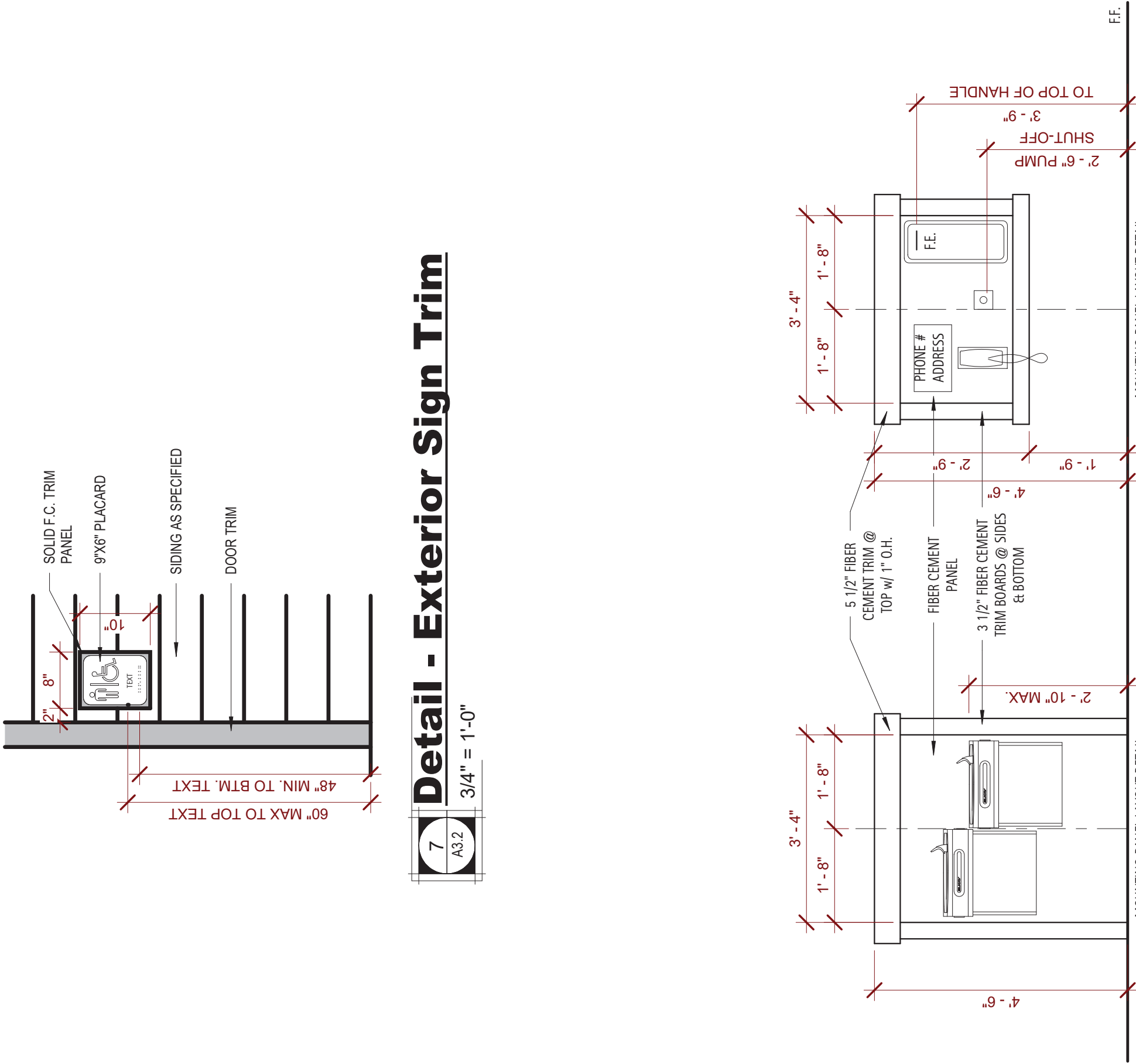
3 Detail - Typ. Trim Band @ Soffits

A3.2 3/4" = 1'-0"



2 Detail - Typical Dormer

A3.2 1/2" = 1'-0"

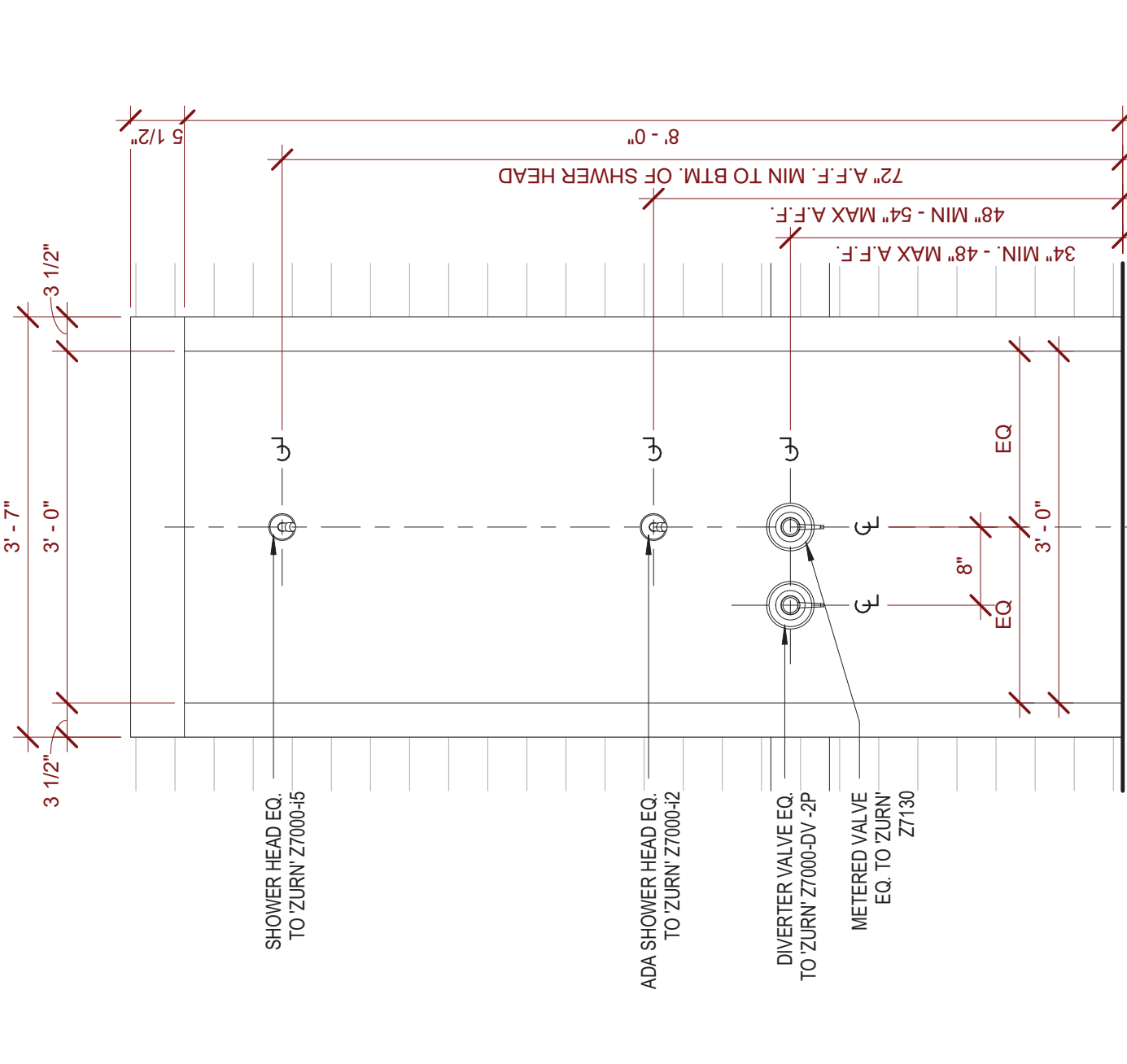


7 Detail - Exterior Sign Trim

A3.2 3/4" = 1'-0"

6 Detail - Water Cooler & Emergency

A3.2 1/2" = 1'-0"



5 Detail - Rinse Shower

A3.2 3/4" = 1'-0"

1041.7 OUTDOOR RINSE SHOWERS. OUTDOOR RINSE SHOWERS SHALL PROVIDE AT LEAST TWO FIXED SHOWER HEADS. ONE FIXED SHOWER HEAD SHALL BE 48 INCHES (1220 MM) MINIMUM AND 54 INCHES (1370 MM) MAXIMUM ABOVE THE GROUND SURFACE. AND ONE FIXED SHOWER HEAD SHALL BE 72 INCHES (1830 MM) MINIMUM ABOVE THE GROUND SURFACE. EXCEPTION: A HAND HELD SHOWER SPRAY UNIT COMPLYING WITH 808.6 SHALL BE PERMITTED INSTEAD OF THE FIXED SHOWER HEAD 48 INCHES (1220 MM) MINIMUM AND 54 INCHES (1370 MM) MAXIMUM ABOVE GROUND SURFACE

TOILET ACCESSORIES



Millw
1/2" = 1'-0"

UIC

Enlargement
1/2" = 1'-0"

Enlargement
1/2" = 1'-0"

Detail
3/4" = 1'-0"

Detail
3/4" = 1'-0"

6
A4.0

Detail
3/4" = 1'-0"

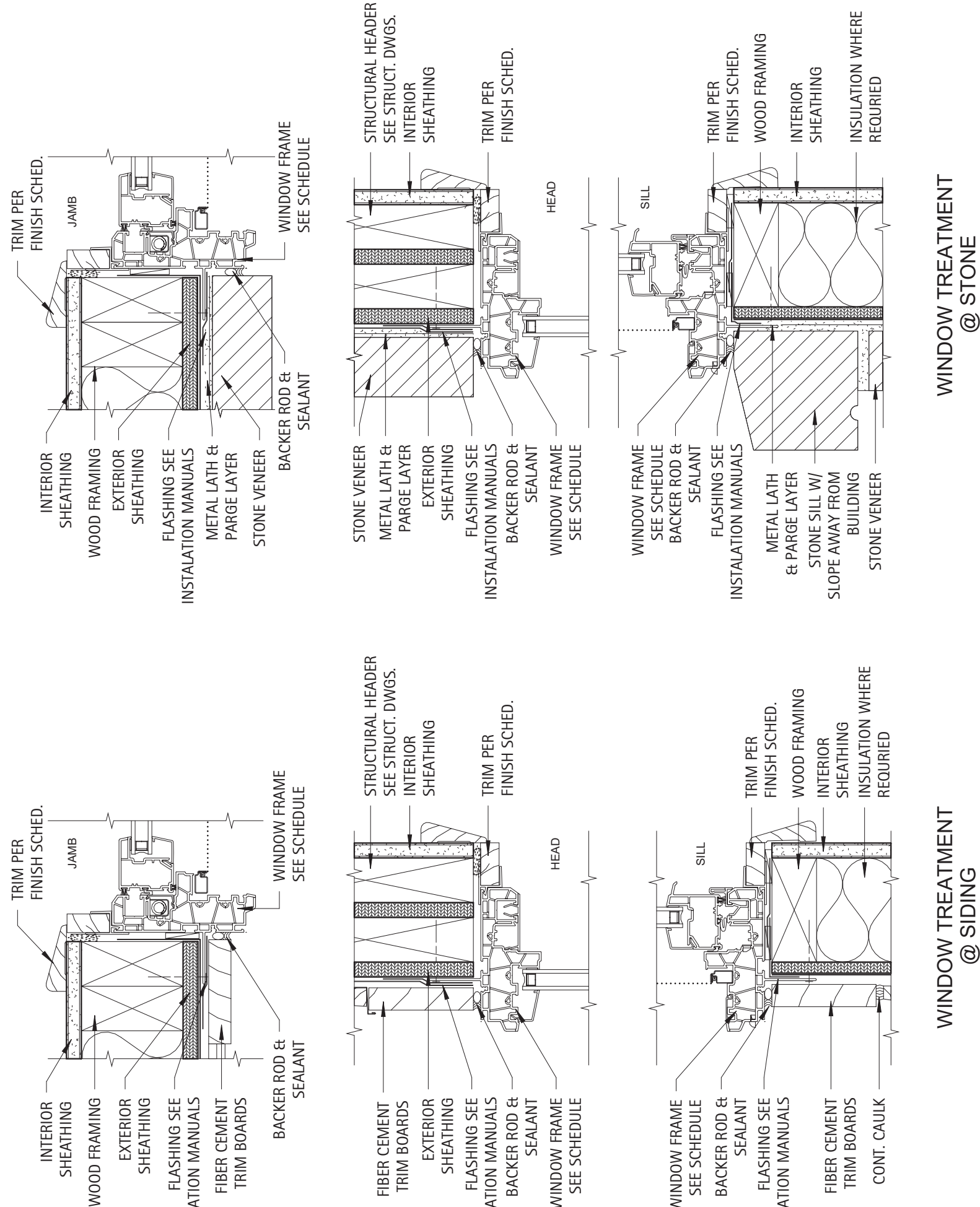
Enlargement
1
A4.0
1/2" = 1'-0"



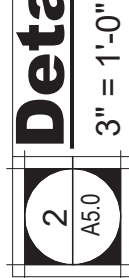
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DR HORTON

LILLINGTON, NC

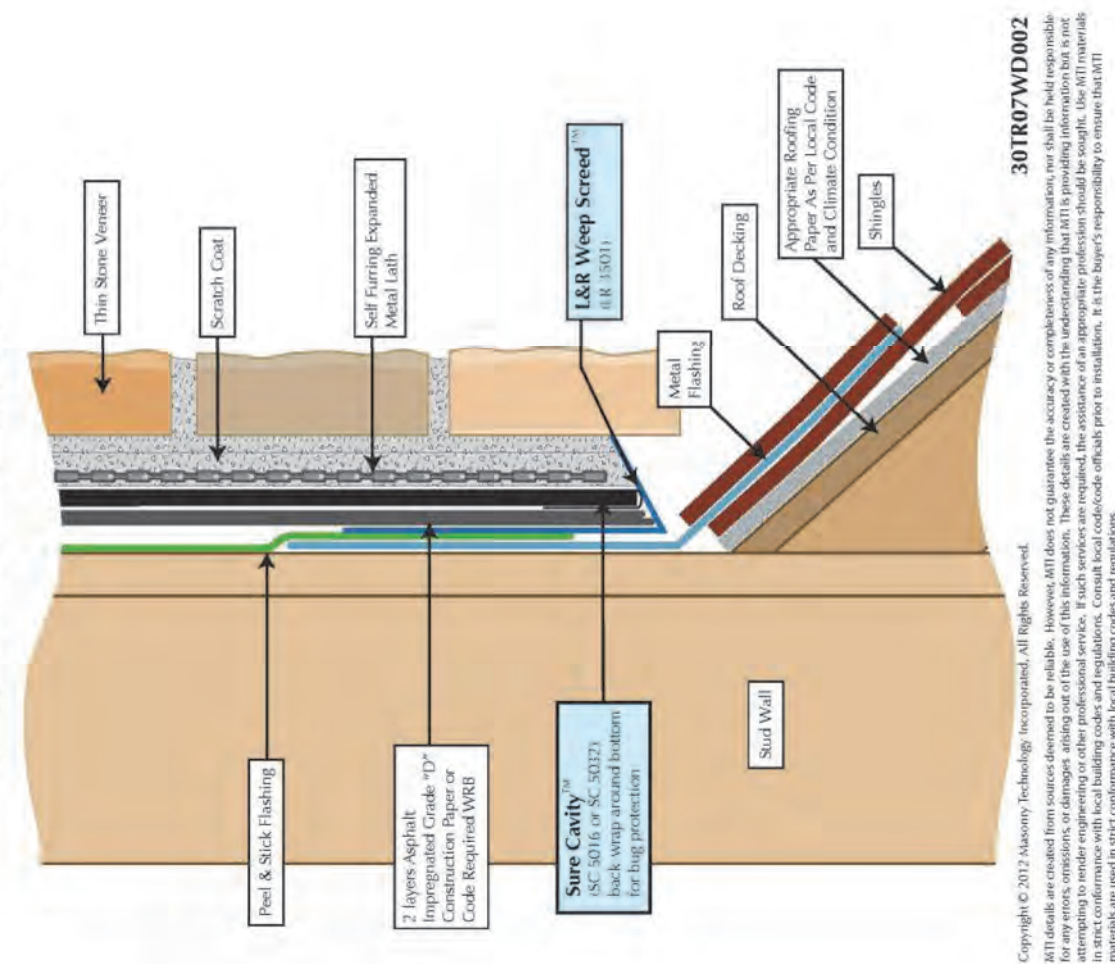


Detail - Window Treatments



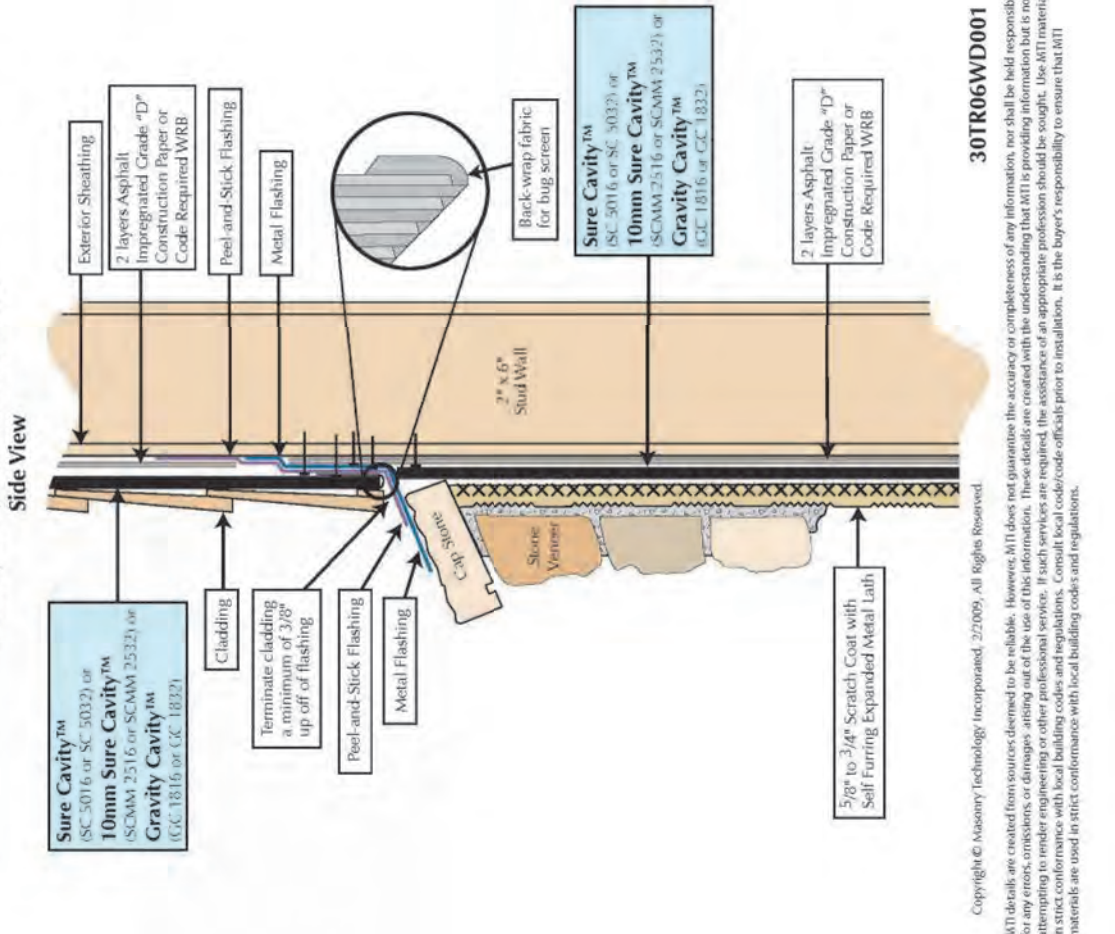
Thin Stone Veneer Side Wall to Roof Termination Detail

Sure Cavity™ SC-2016 or SC-5023 and L&K Weep Scream® (L&K 3501)



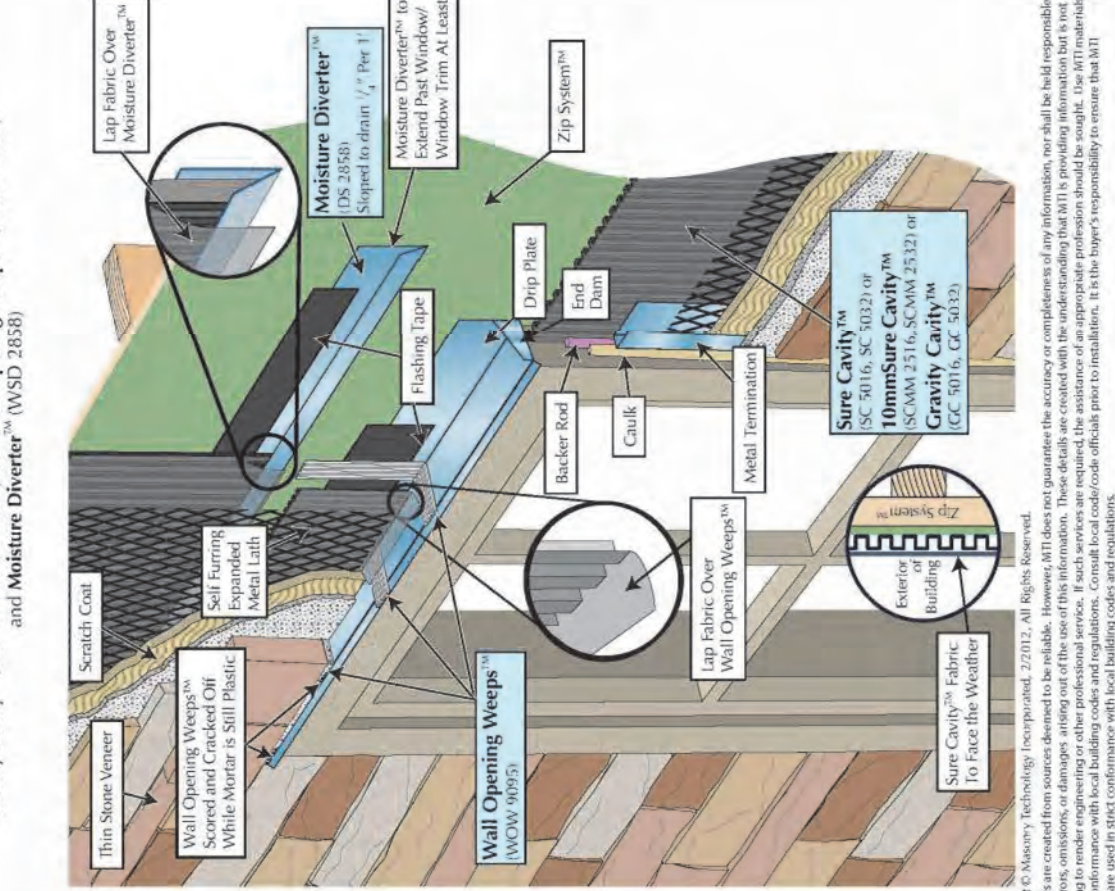
Cladding Systems to Thin Stone Veneer Installation Side View

Sure Cavity™ SC-2016 or SC-5023 or Thin Stone Veneer SCAM 2316 or SCAM 2322 or Gravity Cavity™ (GC-1816 or GC-1832)



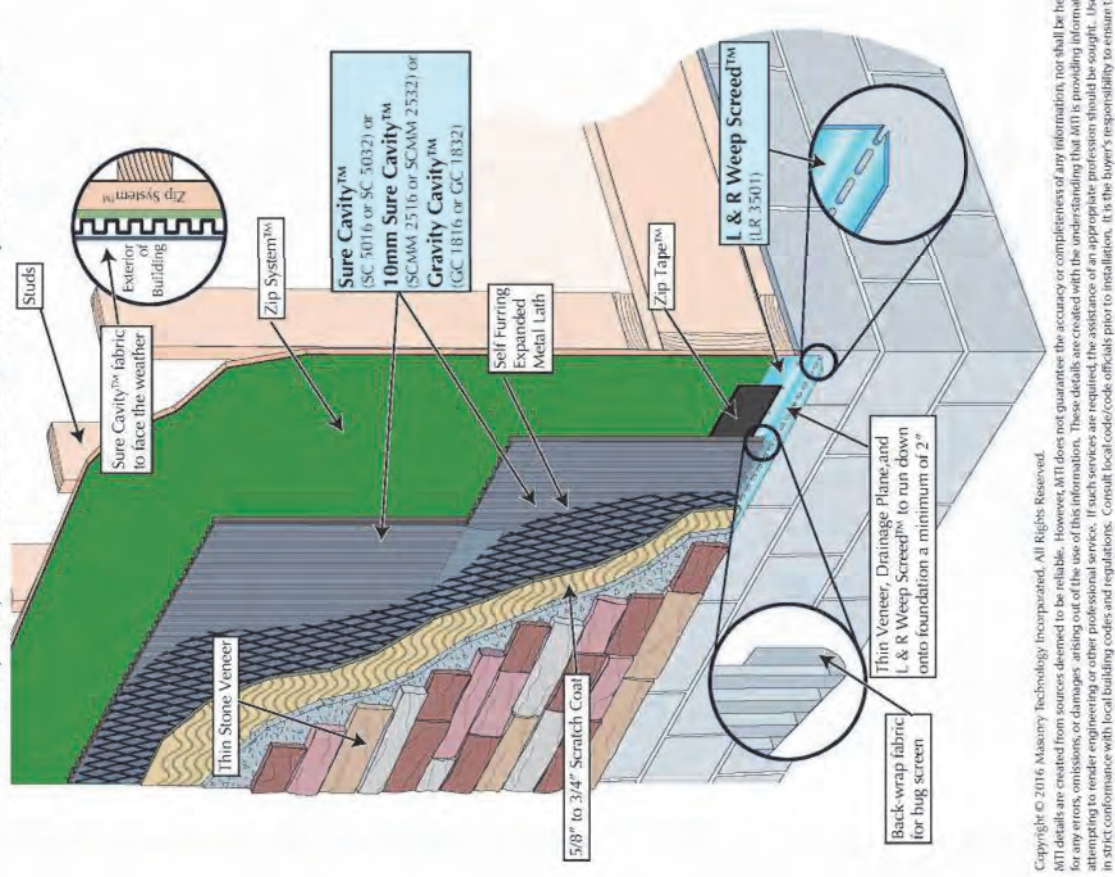
Thin Stone Veneer with Drainage Plane and Weeps on Zip System™ with Moisture Diverter™ at Top of Window

Sure Cavity™ SC-2016 or SC-5023 or Thin Stone Veneer SCAM 2316 or SCAM 2322 or Gravity Cavity™ (GC-1816 or GC-1832) and Wall Opening Weep™ (WOW 9095) and Moisture Diverter™ (MSD 2838)

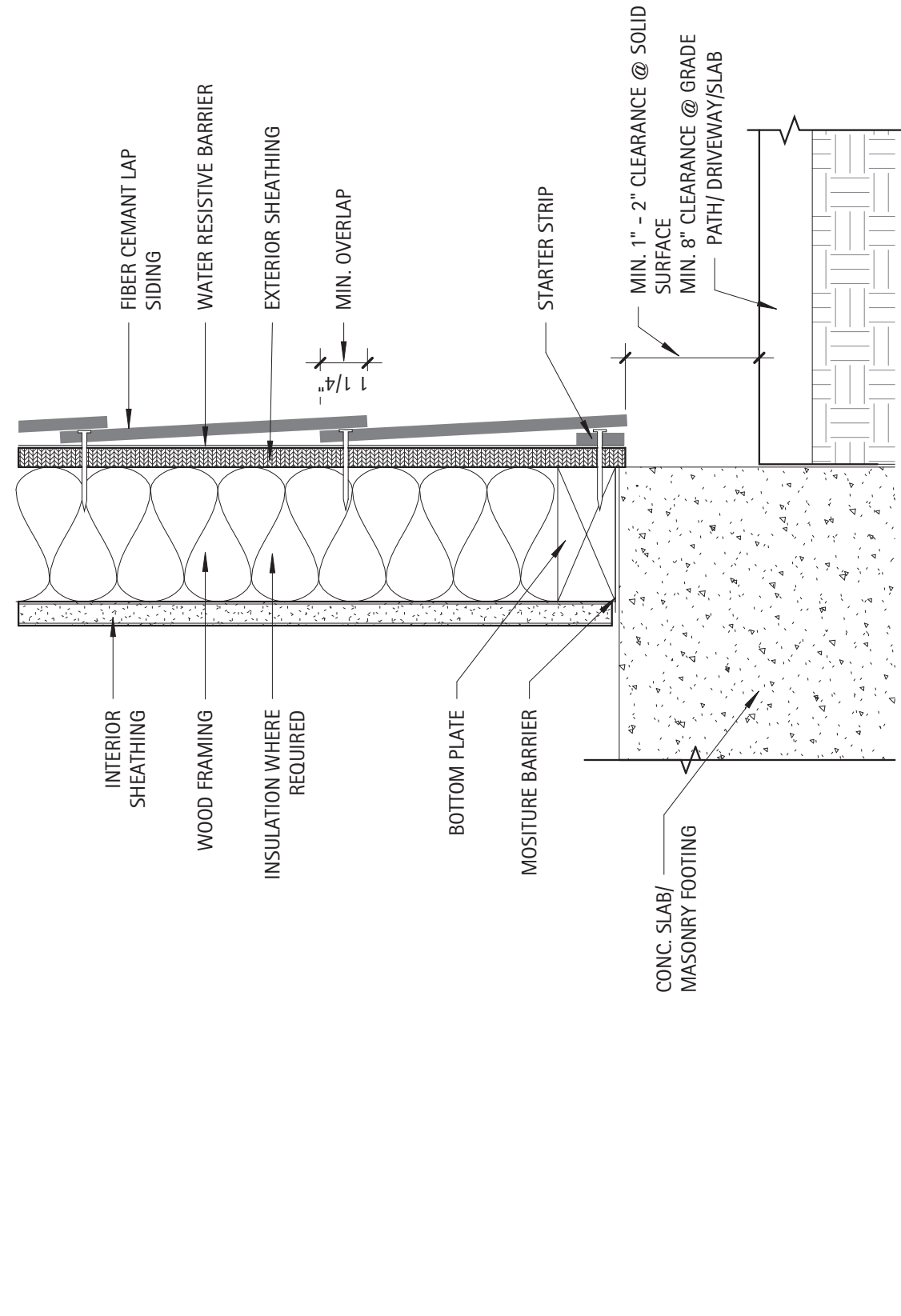


L&K Weep Scream® at Bottom of Thin Stone Veneer Wall With Zip System™

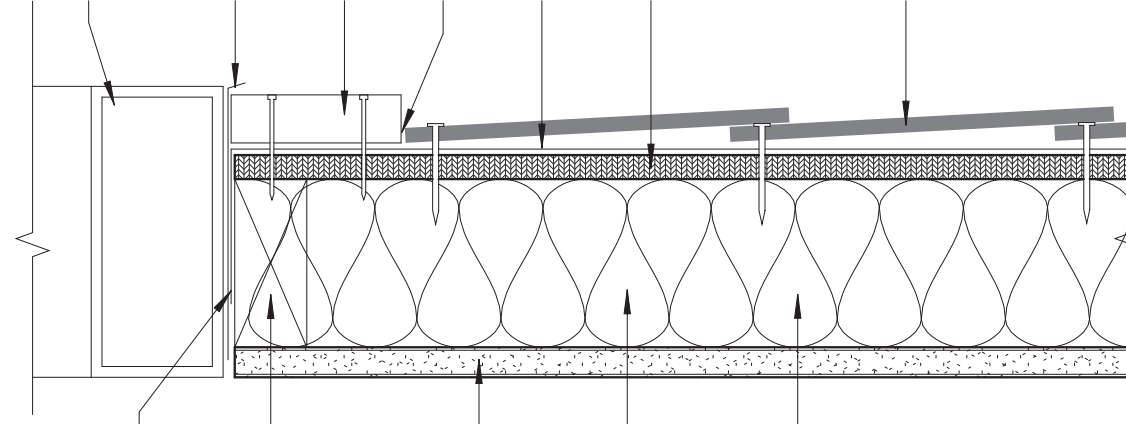
Sure Cavity™ SC-2016 or SC-5023 or Thin Stone Veneer SCAM 2316 or SCAM 2322 or Gravity Cavity™ (GC-1816 or GC-1832) and L&K Weep Scream® (L&K 3501)



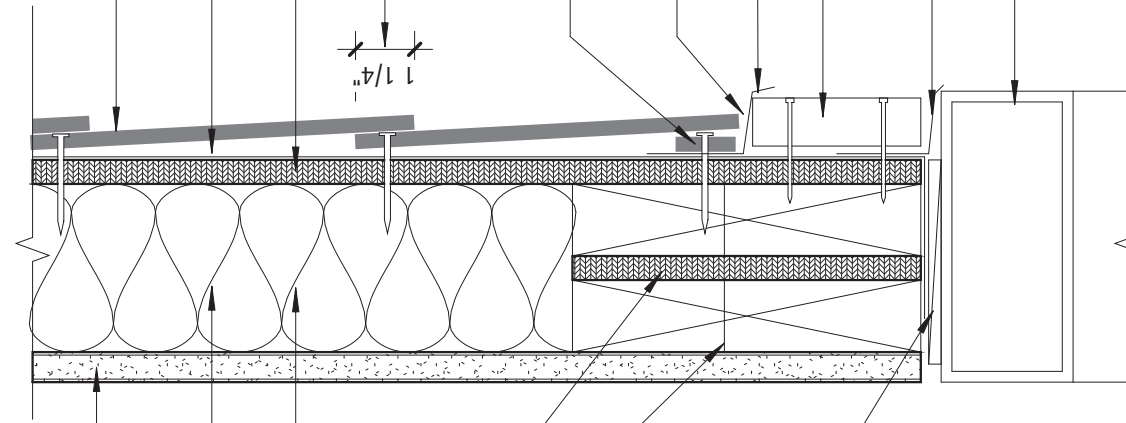
Detail - Stone Veneer



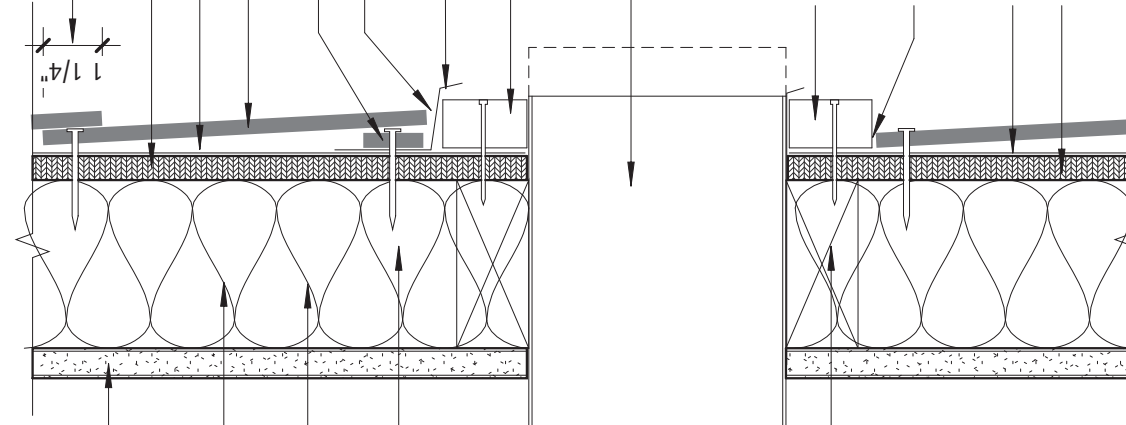
SIDING @ FOUNDATION



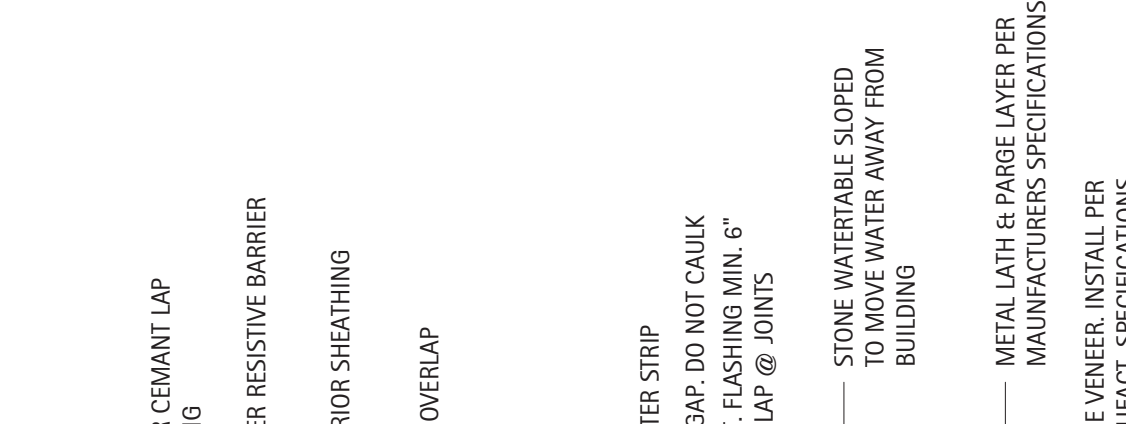
TYPICAL WINDOW SILL TRIM



TYPICAL WINDOW HEADER TRIM

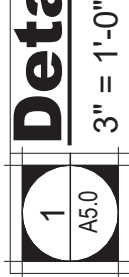


TYPICAL FIXTURE TRIM



SIDING @ STONE VENEER

Detail - Fiber Cement Siding

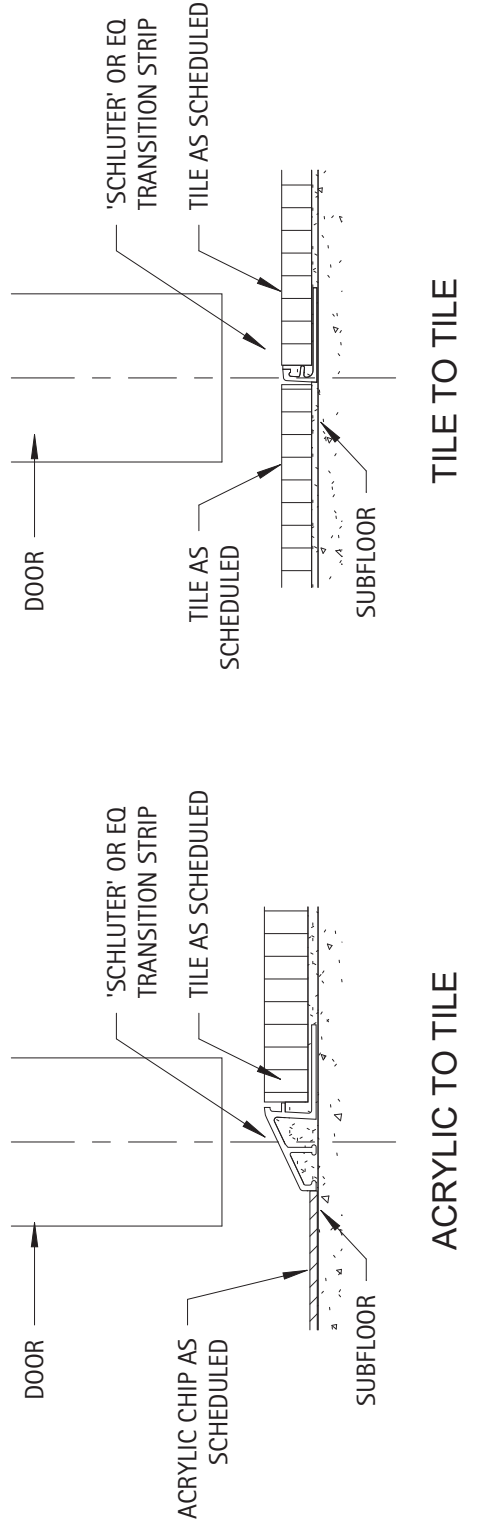
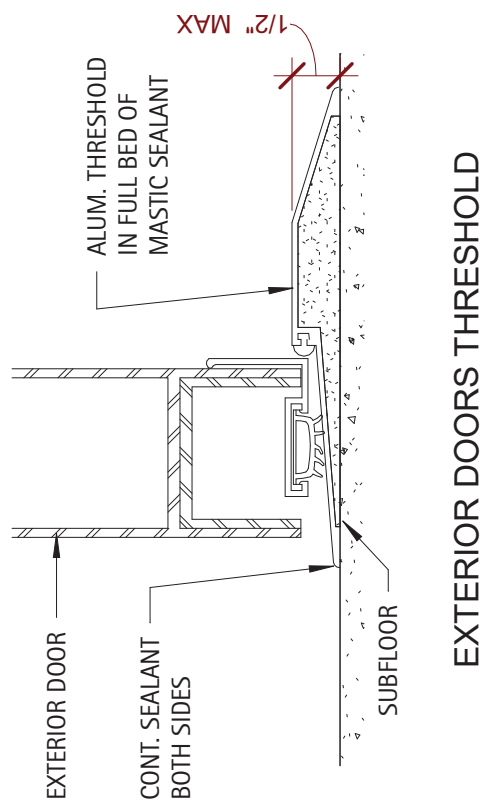
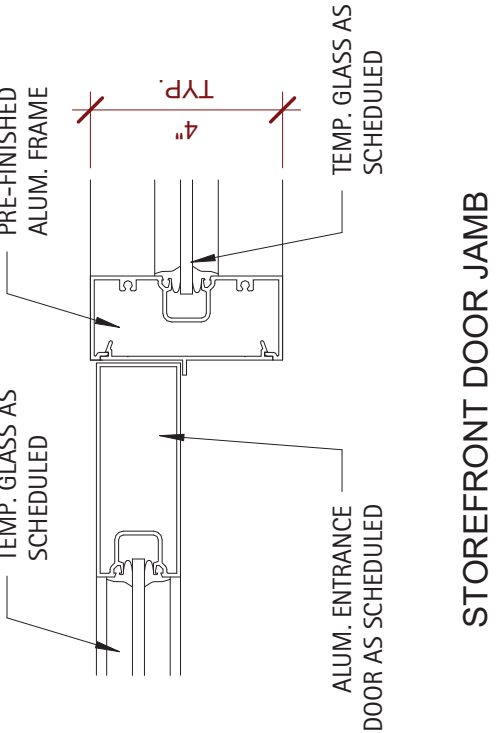
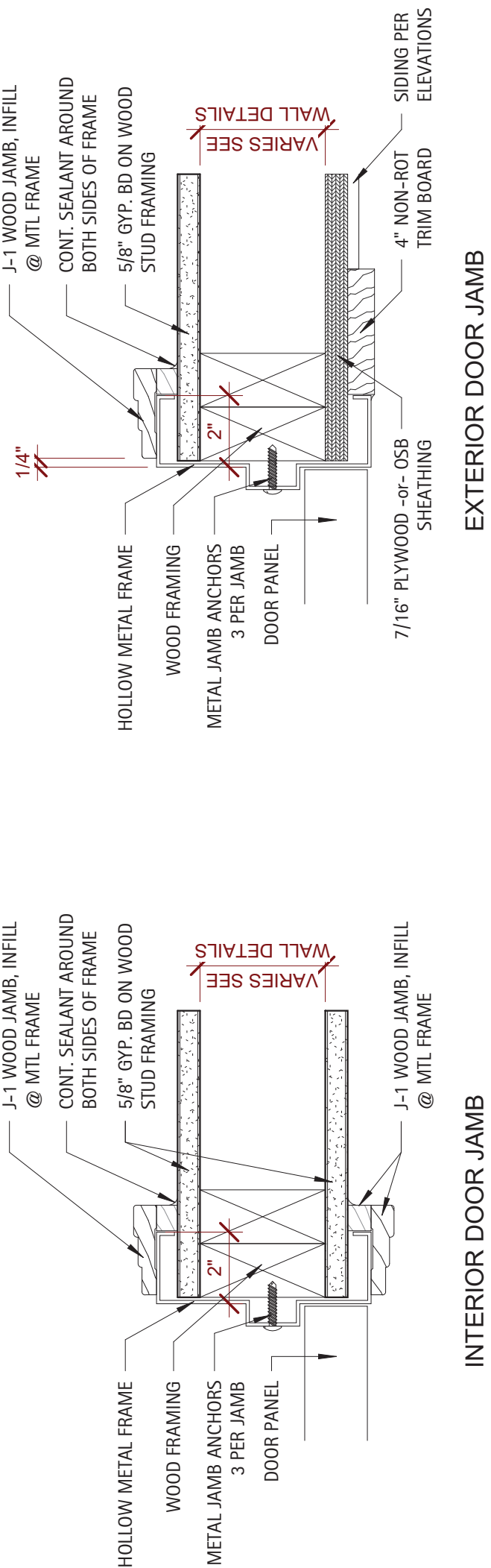




MATTHEWS LANDING

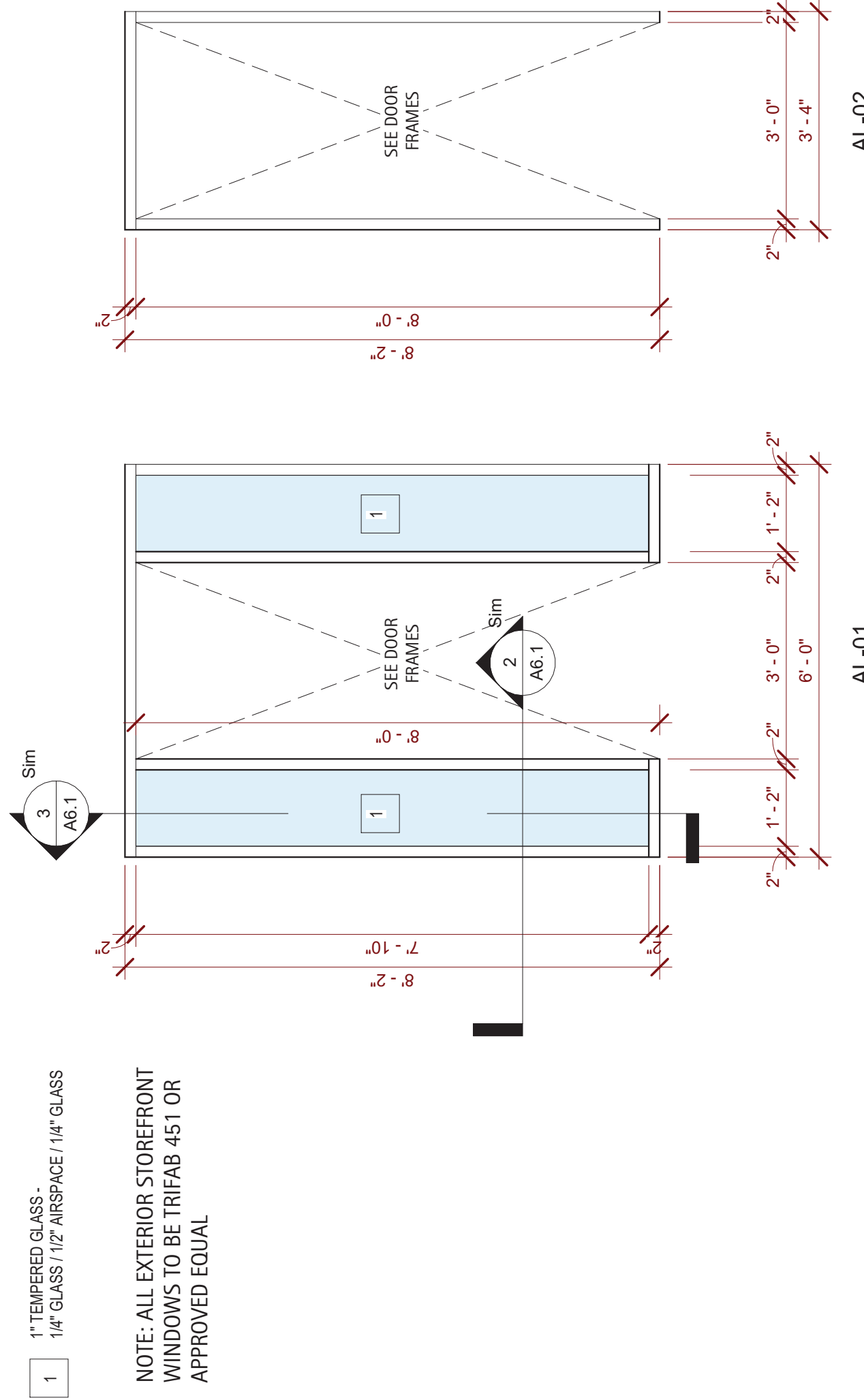
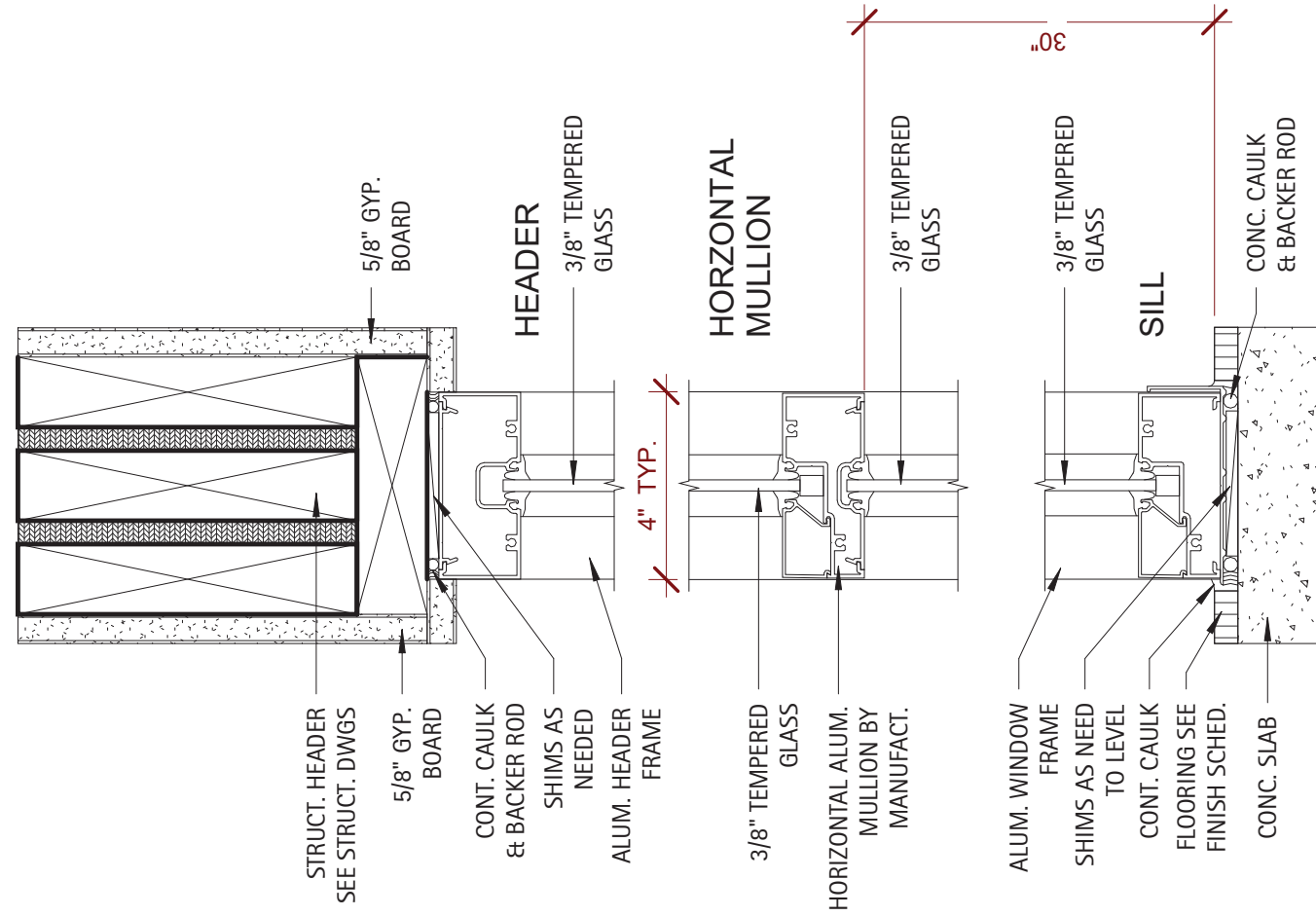
DR HORTON

LILLINGTON, NC



Detail - Typ. Door Jambs

3" = 1'-0"



Detail - Storefront Vertical Sect.

3" = 1'-0"

Detail - Storefront Horiz. Sect.

3" = 1'-0"

Detail - Storefront

1/2" = 1'-0"

STOREFRONT
ELEVATIONS
AND DETAILS

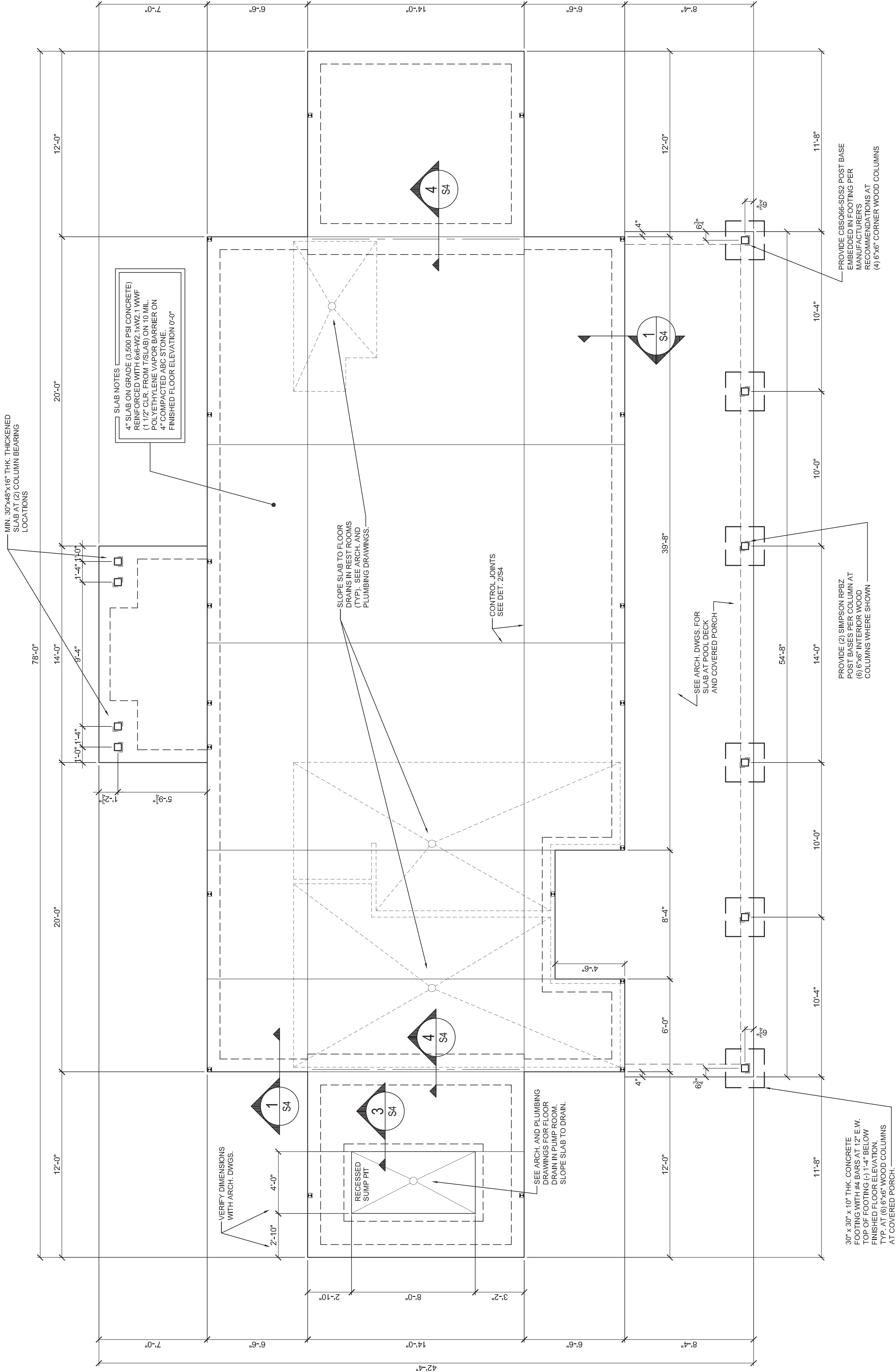
A6.1

MATTHEWS LANDING
D.R. HORTON
LILLINGTON, NC

NO.	REVISION	DATE

PROJECT #:	C250202
DATE ISSUED:	3/18/2025
DRAWING BY:	BR
CHECKED BY:	BR/JM

Slab and
Foundation
Plan



1 SLAB AND FOUNDATION PLAN
S1 1/4" = 1'-0"

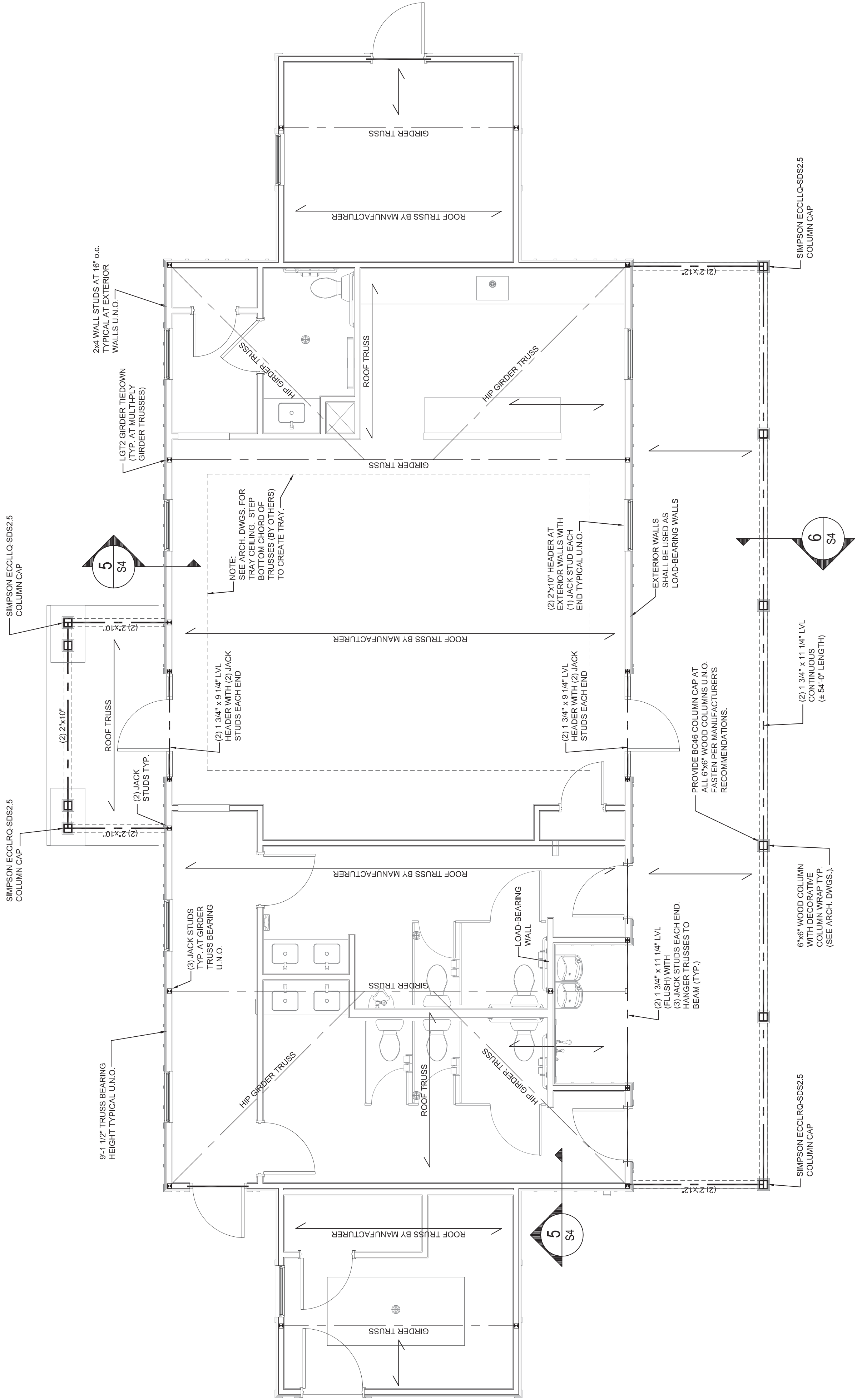
MATTHEWS LANDING
D.R. HORTON
LILLINGTON, NC

NO.	REVISION	DATE

PROJECT #:	C250202
DATE ISSUED:	3/18/2025
DRAWING BY:	BR
CHECKED BY:	BR/JM

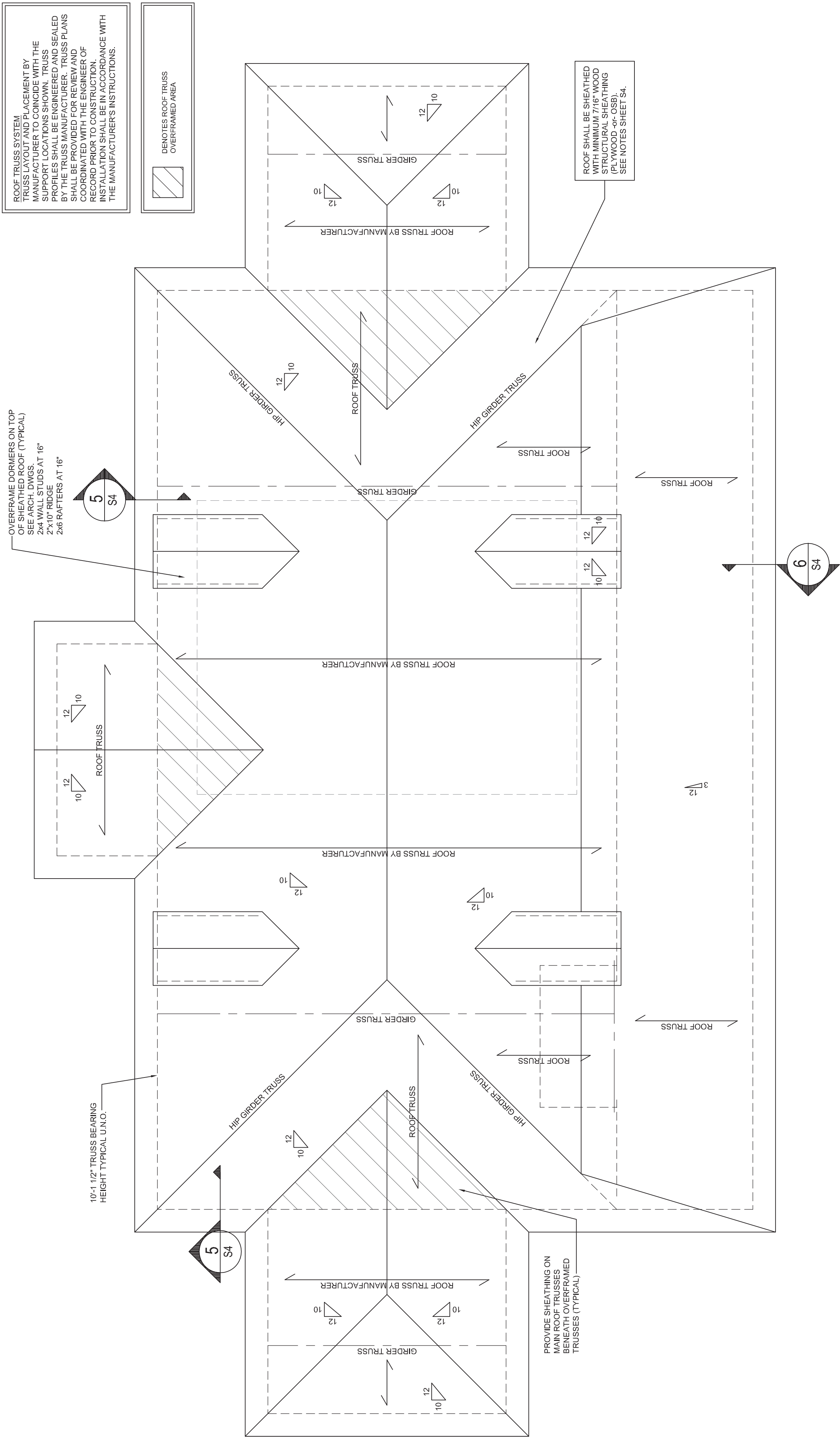
Ceiling
Framing
Plan

S2



1 WALL AND CEILING FRAMING PLAN

S2 1/4" = 1'-0"



1 ROOF FRAMING PLAN
S3 1/4" = 1'-0"

5. FAUCETS AND FIXTURE FITTINGS SHALL CONFORM TO ASME A112.18.1.

- SEWER CONNECTIONS, CONFIRM INVERTS, AND VERIFY THESE CAN BE PROPERLY CONNECTED TO WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING. ONCE INVERTS AND FALL HAVE BEEN ESTABLISHED, EXIST SANITARY SEWER PIPING TO 5 FEET OUTSIDE THE BUILDING AND 10 FEET OUTSIDE THE BUILDING, AND MANHOLES, AND CLEANOUTS NECESSARY FOR A COMPLETE INSTALLATION.
 13. ALL SANITARY SEWER PIPING IS BELOW GRADE OR WITHIN WALLS UNLESS OTHERWISE NOTED. ALL SANITARY VENT PIPING IS ABOVE THE CEILING OR WITHIN WALLS UNLESS OTHERWISE NOTED. SOIL AND WASTE PIPING SHALL BE INSTALLED TO PROVIDE PROTECTION AGAINST FREEZING PER 306.4.1. WASTE AND SOIL LINES LEAVING THE BUILDING MUST HAVE A MINIMUM 2 INCH SLOPE.
 14. SOIL AND WASTE LINES 18 INCHES AND SMALLER SHALL BE SLOPED AT 1/4 INCH PER FOOT MINIMUM. SOIL AND WASTE LINES 3 INCHES TO 6 INCHES IN DIAMETER SHALL BE SLOPED AT 1/8 INCH PER FOOT MINIMUM.
 15. FOR WATER COLD WASTE CONNECTIONS, A 4 INCH BY 3 INCH CLOSET BEND SHALL BE ACCEPTABLE. WHERE A 3 INCH BEND IS UTILIZED ON WATER CLOSERS, A 4 INCH BY 3 INCH FLANGE BEND BE INSTALLED TO RECEIVE THE FUTURE HORN.
 16. FOR PLASTIC PIPE SIZES GREATER THAN 6 INCHES, AND OTHER PIPE SIZES GREATER THAN 4 INCHES, THE MANUFACTURER'S RECOMMENDATIONS FOR PIPES AT ALL CHANGES IN DIRECTION AND AT ALL CHANGES IN DIAMETER GREATER THAN TWO PIPE SIZES. BRACES, BLOCKS, RODDING BACKFILL AND OTHER SUITABLE METHODS AS SPECIFIED BY THE COUPLING MANUFACTURER SHALL BE UTILIZED.
 17. BASES OF STOPS SHALL BE SUPPORTED BY THE BUILDING STRUCTURE, VIRGIN OR COMPACTED EARTH, OR OTHER SUITABLE MATERIAL TO PREVENT SINKING.
 18. HORIZONTAL DRAIN PIPES SHALL HAVE CLEANOUTS IN ACCORDANCE WITH 708.10. DRAIN CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH A MIXTURE OF GRAPHITE AND LINED OIL. ENSURE CLEARANCE AT ALL CLEANOUTS FOR RODDING OF DRAINAGE SYSTEM. INSTALL FLOOR CLEANOUTS AT AN ELEVATION TO ACCOMMODATE FINISHED FLOOR. EVERY CLEANOUT SHALL BE PROVIDED WITH A 1/2 INCH BEND TO PREVENT CLEANOUTS ON 6 INCH DRAINAGE PIPE OR AT RIGHT ANGLES THEREON. CLEANOUTS ON 8 INCH AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 18 INCHES FOR RODDING.
 19. DRAINAGE PIPING FOR FUTURE FIXTURES SHALL TERMINATE WITH AN APPROVED CAP OR PLUG.
 20. AIR ADMITTANCE DEVICES SHALL BE INSTALLED AFTER THE DWV TESTING
- FALCETS AND FIXTURE FITTINGS THAT SUPPLY DRINKING WATER FOR HUMAN CONSUMPTION SHALL CONFORM TO THE REQUIREMENTS OF NSF 61, SECTION 9. FIXTURE SINKS, FAUCETS, AND DIVERSERS SHALL BE INSTALLED AND ADJUSTED SO THAT THE FLOW OF HOT WATER FROM THE HOT WATER HEATER SHALL BE AT LEAST 100 GPM. DRAINAGE PIPING, INCLUDING PREVENTERS, SHALL BE IN ACCORDANCE WITH SECTION 606.13 OF THE NC PLUMBING CODE AND THE LOCAL AUTHORITY HAVING JURISDICTION. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS SHALL CONFORM TO ASSE 1013 OR ANWA 5511. THE RELIEF OPENING SHALL DISCHARGE BY AIR GAP. AIR GAP SHALL COMPLY WITH ASME A112.1.1 AND AIR GAP FITTINGS WITH ASME A112.1.3. DOUBLE CHECK VALVES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 606.13. ACCESS TO BACKFLOW PREVENTERS SHALL BE PROVIDED AS SPECIFIED BY THE INSTALLATION INSTRUCTIONS OF THE APPROVED MANUFACTURER.
7. FOR BELOW GRADE SANITARY WASTE PIPING, PC SHALL USE SERVICE WEIGHT CAST IRON PIPE WITH COMPRESSION JOINTS (ASTM A 74). USE MINIMUM 2 INCH SIZE UNDERGROUND. SOILD WUAL SCHEDULE 40 (ASTM D 2688) WITH SCHEDULE 40 SOCKET TYPE FITTINGS (ASTM D 3311) MAY BE USED. DO NOT USE PVC PIPE FOR APPLICATIONS WHERE THE WASTE WATER TEMPERATURE EQUALS OR EXCEEDS 140°F OR EXCEEDS 100°F FOR ABOVE GRADE SANITARY WASTE AND VENT PIPING. USE SERVICE WEIGHT CAST IRON NO-HUB TYPE WITH COUPLINGS (CSP1 301). SOILD WALL SCHEDULE 40 (ASTM D 2688) WITH SCHEDULE 40 SOCKET TYPE FITTINGS (ASTM D 3311) MAY BE USED IF PERMITTED BY LOCAL CODE, EXCEPT IN BUILDINGS EXCEEDING 75 FEET IN HEIGHT. DO NOT INSTALL PC IN RETURN AIR PRELIMS. ALL VENT AND BRANCH VENT PIPES SHALL BE SO GRADED AND CONNECTED AS TO DRAIN BACK TO THE DRAINAGE PIPING. VENT PIPES SHALL BE INSTALLED WITH A MINIMUM 1/4 INCH SLOPE. LENGTH SHALL BE INCREASED BY ONE NOMINAL SIZE FOR THE ENTIRE DEVELOPED LENGTH OF THE PIPE.
 9. PC SHALL PROVIDE ALL WATER HEATERS (WATJABIN/PUT AND CAPACITY AS NOTED IN SCHEDULE). ALL WATER HEATERS SHALL BE THIRD PARTY AS NOTED; PROVIDE PANS FOR WATER HEATERS IN ACCORDANCE WITH 504.7 OF THE NC PLUMBING CODE. ELECTRICAL CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR. PC SHALL COORDINATE WITH EC ON ALL ELECTRICAL WORK. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NC PLUMBING CODE. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NC PLUMBING CODE. PUMPS SHALL BE RATED FOR TRANSPORT OF POTABLE WATER. PUMPS IN AN INDIVIDUAL WATER SUPPLY SHALL BE CONSTRUCTED AND INSTALLED SO AS TO PREVENT CONTAMINATION FROM ENTERING THE WATER SUPPLY SYSTEM.

METHODS:

- [illegible]

MATERIALS: AND USING STANDARD, COMMERCIALLY ACCEPTED PIPE HANGERS AND SUSPENSION EQUIPMENT. ALL FIXTURES, DEVICES, AND EQUIPMENT

1. ALL OVERHEAD DOMESTIC WATER PIPING SHALL HAVE B915 LEAD FREE SOLDER, AND ALL BELOW GRADE WATER PIPING SHALL BE TYPE K COPPER WITH NO JOINTS. ALL PIPING SHALL HAVE MANUFACTURER'S NAME AND THE APPLICABLE STANDARD TO WHICH IT WAS MANUFACTURED CLEARLY IDENTIFIED ON THE PIPE OR FITTING. ALL ABOVE GROUND PIPING SHALL BE BRASS Joints ON ALL COPPER PIPING, 1-1/2 INCH AND LARGER. 70 °C MAY USE (ASTM F 887) WITH APPROVED FITTINGS (ASTM F 1807) WITH OWNER'S APPROVAL. " CVC PIPING ASTM D 2846 OR ASTM F 441) WITH APPROVED FITTINGS (ASTM D 2846, ASTM F 438, OR PLASTIC FIBRE). FITTINGS, AND COMPONENTS NOT LOCATED IN PLenums, ALL PLASTIC CONFORMING TO NSF 14, ALL THE PIPING TYPES INCLUDING INSULATION SHALL HAVE A MAXIMUM LEAD CONTENT OF .25 PERCENT AND SHALL CONFORM TO NSF 61. HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI AT 180° F. COLD WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 160 PSI AT 73.4° F. DO NOT INSTALL PE-X OR COPPER PIPING IN RETURN AIR SPACES.
2. ALL RETURN AIR SPACES MUST HAVE BRASS BODY FULL PORT, CHROME PLATED BALL VALVES WITH TEFLON SEALS, 150 PSI WSP, AND COMPLY WITH MSS SP-110 GATE VALVE. ALL HANGERS SHALL BE BRASS BODY. ALL COPPER WITH MSS GP-480 TYPE 2 STANDARD. VAPE BODY SHALL BE ASTM B 82, BRONZE WITH INTEGRAL SEAL AND UNION RING BONEt ENDS SHAl BE THREADED OR SOLDER WITH COPPER-SILVER BRONZE SHED AND PERMIT EASY ACCESS WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIALS. PROVIDE ACCESS DOORS IF REQUIRED. VALVES SHALL BE BY NIBCO, WATTS, OR STOCKHAM.
3. COLD WATER LINES SHALL BE INSULATED WITH 1/2 INCH THICK FIBROUS GLASS INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 10 WHEN TESTED IN ACCORDANCE WITH UL 181. HOT WATER LINES SHALL BE INSULATED WITH 1/2 INCH THICK FIBROUS GLASS INSULATION CONFORMING TO THE SAME STANDARD. PIPING LARGER THAN 2 INCHES SHALL RECEIVE 1-1/2 INCH THICK INSULATION. CLOSED CELL RUBBER INSULATION MEETING THE SMOKE AND FLAME RATINGS ABOVE MAY BE SUBSTITUTED FOR FIBROUS GLASS TYPE IF SO DESIRED. INSULATION INSTALLED ON PIPING OPERATING BELOW AMBIENT TEMPERATURES MUST HAVE A CONTINUOUS VAPOR BARRIER. INSULATION SHALL BE INSTALLED TO PREVENT CONDENSATION SYSTEMS OPERATING ABOVE AMBIENT. THE BUTT JOINTS SHOULD NOT BE SEALED ON COLD SURFACES WHERE A VAPOR SEAL MUST BE MAINTAINED. INSULATION SHALL BE APPLIED WITH A CONTINUOUS, UNBROKEN MOISTURE AND VAPOR BARRIER. ALL HANGERS, SUPPORTS, ANCHORS, OR OTHER PROJECTIONS SECURED TO CURF SURFACES SHALL BE INSTALLED TO PREVENT VAPOR BARRIER PENETRATION. ALL TEAR OPENINGS, OR SLITS EXCEPT WHERE FIRESTOP OR PRESSEAIR MATERIALS ARE REQUIRED. INSULATION SHALL HAVE A FACTORY APPLIED ALL-SERVICE JACKET WITH SELF-SEALING LAP WHITE-KRAFT PAPER BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBER, CONFORMING TO ASTM C 1136 TYPE 1; VAPOR BARRIER WITH A PERMEABILITY OF 0.05 PERM FORMALDEHYDE EMISSIONS, THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE

- | SYMBOL | FIXTURE | MANUFACTURER |
|--------|--------------------------------------|---|
| P1 | TWO PIECE TANK TYPE WATER CLOSET | KOHLER 4505 OR EQUAL BY AMERICAN STANDARD OR TOTO |
| P1H | TWO PIECE TANK TYPE ADA WATER CLOSET | KOHLER 4505 OR EQUAL BY AMERICAN STANDARD OR TOTO |
| P2A | UNDER MOUNT LAVATORY | KOHLER K-20000 OR EQUAL BY AMERICAN STANDARD OR TOTO |
| P3 | URINAL | KOHLER K-4891 -ET OR EQUAL BY AMERICAN STANDARD OR TOTO |
| P4 | DRINKING FOUNTAIN | ELKAY VRLTRDSDC |
| P5 | FLOOR DRAIN | WATTS D-200-A OR EQUAL BY ZURN OR JR SMITH |
| P6 | SUMP PIT FLOOR DRAIN | ZURN FD1 OR EQUAL BY WATTS OR JR SMITH |
| P7 | FLOOR DRAIN TRAP SEAL | JAY'R, SMITH OR EQUAL |
| P8 | FREEZERPROOF HOSE BIBB | ZURN Z1346 OR EQUAL BY WOODFORD OR MIFAB |
| P9 | INTERIOR HOSE BIBB | ZURN Z1341-BIP OR EQUAL BY MIFAB OR WOODFORD |
| P10 | EXPANSION TANK | ANTROD, SFC OR EQUAL BY WATTS OR BELL & GOSSETT |
| P11 | SINK DOUBLE BOWL | ELKAY LEP003119 OR EQUAL BY FRANKO OR WIGEN |
| P12 | 1-1/4" RPZ BACKFLOW PREVENTER | WATTS LFB08 QT OR EQUAL BY CONBRACO OR WILKINS |
| P13 | 3/4" RPZ BACKFLOW PREVENTER | WATTS LFB08 QT OR EQUAL BY CONBRACO OR WILKINS |
| YHD | YARD HYDRANT | WOODFORD MODEL S4H OR APPROVED EQUAL |
| FCO | FLOOR CLEANOUT | ZURN, WATTS, JR SMITH |
| WCO | WALL CLEANOUT | ZURN, WATTS, OR JR SMITH |
| AAV | AIR ADMITTANCE VALVE | STUDOR REDVENT OR APPROVED EQUAL |

ns, electronic, mechanical, or otherwise, for reasons other than intended use on the

D.R. HORTON

D.R. HORTON

PLUMBING SCHEDULES	2
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NOTE:
PC TO VERIFY ALL FIXTURES WITH ARCHITECT AND OWNER PRIOR TO PURCHASING

LINETYPE LEGEND	
COLD WATER SUPPLY	----
HOT WATER SUPPLY	----
SANITARY SEWER LINE	----
VENT LINE	----

DO NOT TAP WATER
LINE AHEAD OF RPZ.

DO NOT TAKE WATER
LINE AHEAD OF RPZ.

ELECTRIC WATER HEATER SCHEDULE										
MARK	MFG	MODEL	TANK VOL GALS	RECOVERY KW	SET POINT °F	POWER		CONNECTIONS		OPTIONS
						VOLTAGE	PHASE	HOT	COLD	
WH-1	STATE	ES6-20-SOWS	20	4.5	30	110	240	1	3/4	1-5

1. PROVIDE GALVANIZED STEEL SAFETY PAN

2. UL TYPE LISTED

3. UL TYPE LISTED

4. MEET OR EXCEED ENERGY REQUIREMENTS OF ASHRAE 90.1-2007 OR EQUAL, BY A.O. SMITH, BRADFORD WHITE, OR STATE

1. PROVIDE GALVANIZED STEEL SAFETY PAN
2. UL 174 LISTED
3. PROVIDE ASME LISTED TEMPERATURE AND PRESSURE RELIEF VALVE
4. MEET OR EXCEED FACTOR REQUIREMENTS OF ASHRAE 90.1-2007
5. OR EQUAL BY A.O. SMITH, BRADFORD WHITE, OR STATE

NOTE: PC TO VERIFY ALL FIXTURES WITH ARCHITECT AND OWNER PRIOR TO PURCHASING
--

LINE TYPE LEGEND	COLD WATER SUPPLY ———— HOT WATER SUPPLY ———— SANITARY SEWER LINE ———— VENT LINE - - - - -
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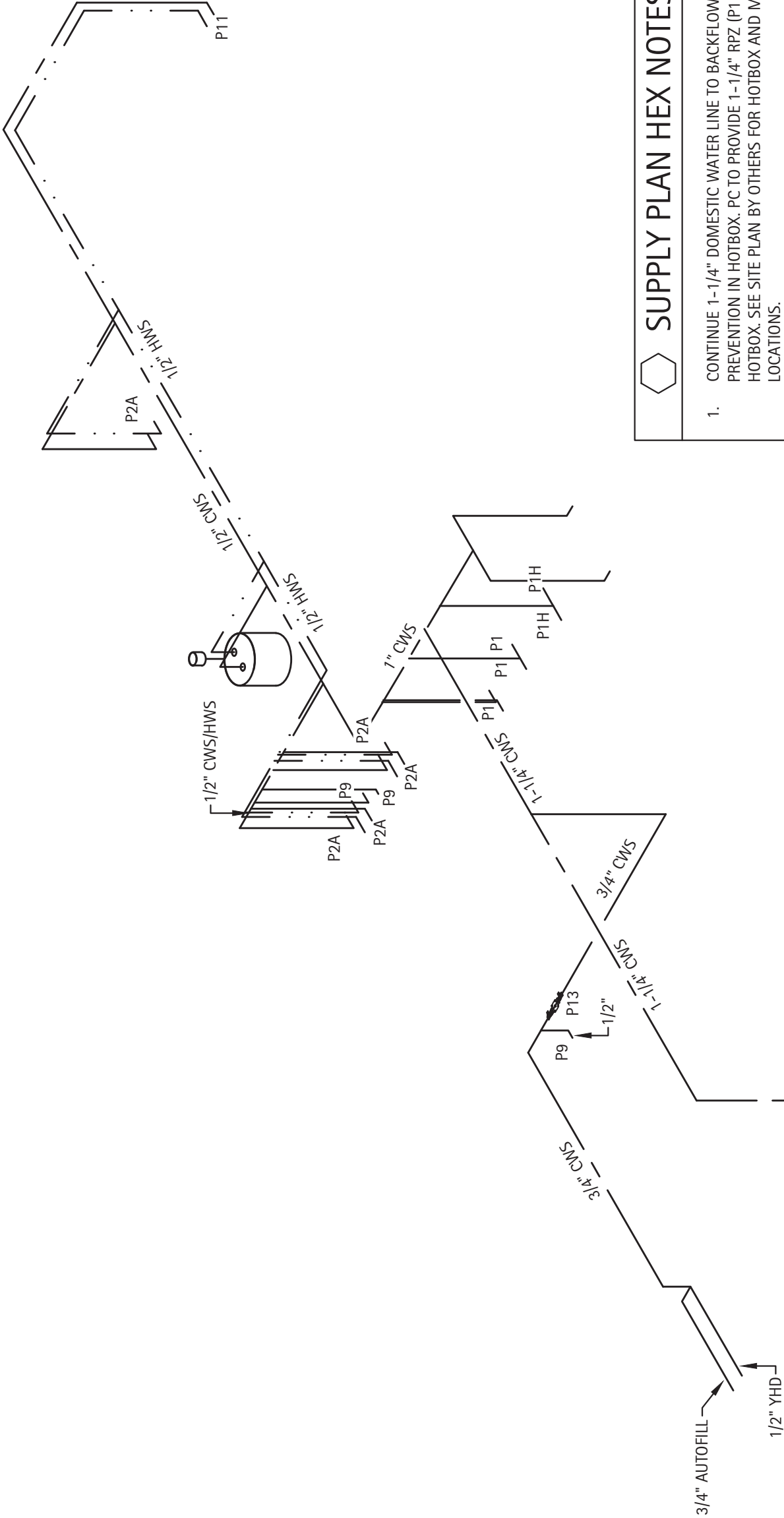
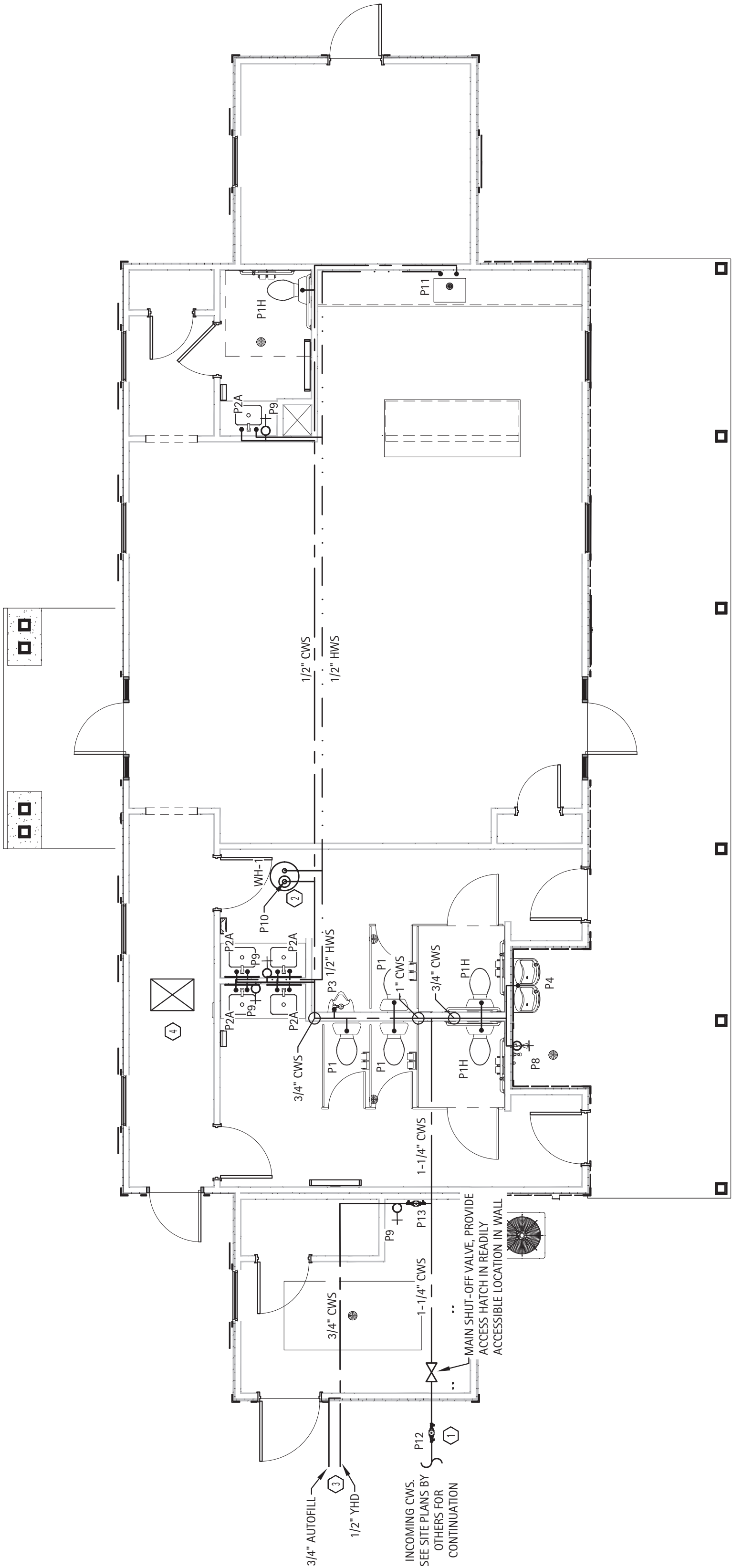


MATTHEW'S LANDING

D.R. HORTON

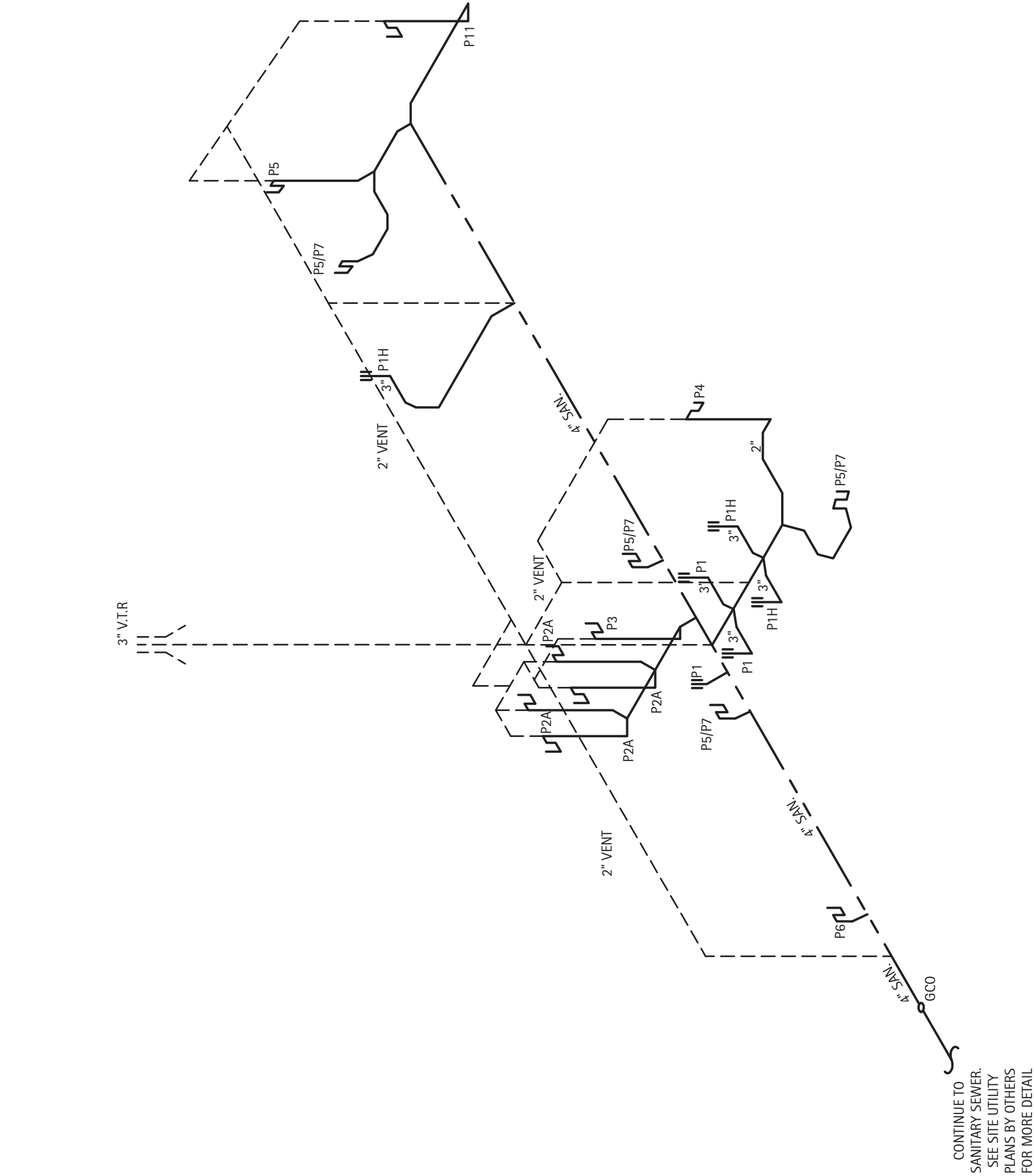
LILLINGTON, NC

DOMESTIC WATER SUPPLY PLAN - SCALE: 3/16" = 1'-0" 2

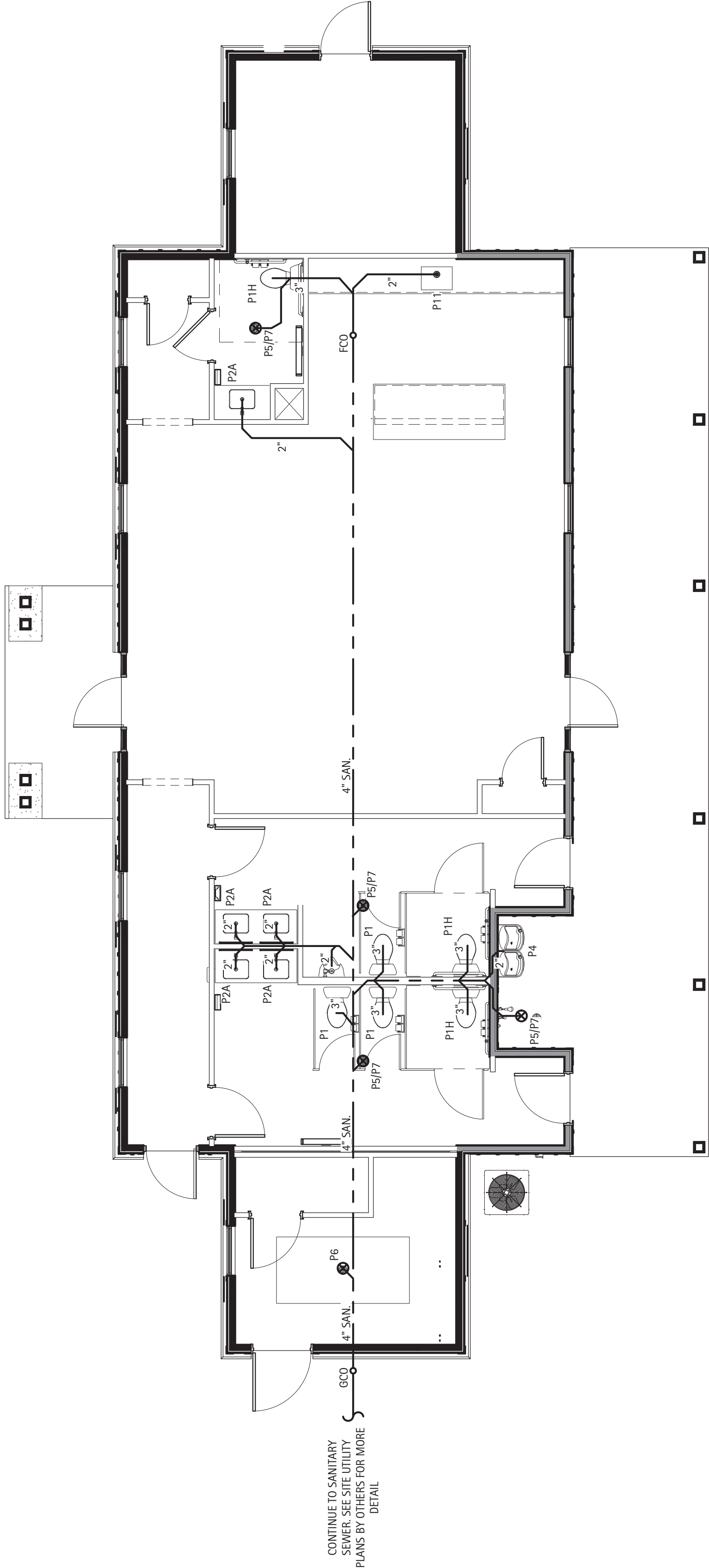


- SUPPLY PLAN HEX NOTES**
1. CONTINUE 1-1/4" DOMESTIC WATER LINE TO BACKFLOW PREVENTION IN HOTBOX. PC TO PROVIDE 1-1/4" RPZ (P12) IN HOTBOX. SEE SITE PLAN BY OTHERS FOR HOTBOX AND METER LOCATIONS.
 2. WATER HEATER MOUNTED ABOVE CEILING.
 3. VERIFY EXACT LOCATION OF YARD HYDRANT WITH ARCHITECT/GC.
 4. ATTIC ACCESS. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.
 5. PC TO COORDINATE WITH EC TO PROVIDE HEAT TRACE FOR FIXTURES WITH THIS NOTE.

DOMESTIC WATER SUPPLY RISER - NO SCALE 1



SANITARY WASTE RISER - NO SCALE 3



SANITARY WASTE PLAN - SCALE: 3/16" = 1'-0" 4

PROJECT #: 250127
DATE ISSUED: 2025 03 18
DRAWING BY: AJP
CHECKED BY: JLH
00% I.F.B.

PLUMBING
PLANS & RISERS

MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT

ELECTRIC UNIT HEATER SCHEDULE					
MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
		KW		KW	
UH-1	MARKEL/ H110H05003	5.0	240/1	5.0	1-3

1.	BUILT-IN THERMOSTAT SWITCH.
2.	CORROSION RESISTANT
3.	

SPUT SYSTEM HEAT PUMP SCHEDULE									
MARK	MFG / MODEL #	NOMINAL CAPACITY TONS	EFFICIENCIES		MOTORS		ELECTRICAL		REMARKS
			OAS	LO	COMPRESSOR	COND. FAN	SEER	COP	
					NO.	NO.		HP	
HP-1	TRANE 5TRW404BA10007	4	7/8	5/16	1	1	14.3/11.7	2.80	1.3-8

SPLIT SYSTEM AIR HANDLER SCHEDULE																			
MARK	MFG / MODEL #	NOMINAL CAPACITY	AIR FLOW		FAN MOTORS			HEATING CAPACITY			COOLING CAPACITY			ELECTRICAL			WEIGHT		REMARKS
			SUPPLY CFM	MIN. OA CFM	SUPPLY NO.	ESP in wg	OUTPUT MBH	AUX ELEC HEAT kW	STAGES	EAT WBDB °F	TOTAL MBH	SENSIBLE MBH	VPH	MCA	MOCP	LBS			
AHU-1	TRANE STE6MBDSAV15A	4	1575	SEE TABLE	1	0.60	28.9	3.84	1	6780	43.8	32.7	240/1	25	25	100	2-4.6-8		

1. PROVIDE CONCRETE PAD FOR UNIT TO SIT ON
2. REPLACE ALL FILTERS AT PROJECTS COMPLETION
3. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
4. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
5. PROVIDE HARD START KIT
6. OR EQUAL BY CARRIER, LENNOX, OR YORK
7. ANY EQUIPMENT SUBSTITUTIONS MUST EQUAL OR EXCEED EFFICIENCIES LISTED (RATINGS PER AHJ)
8. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES

Ventilation Calculation									
Room Name(s)	Zone Type	Area [sq. ft.]	Rp	Ra	Default Occupancy	Pz	Ex	Airflow to Zone (cfm)	Required Exhaust (cfm)
GREAT ROOM	Multiseuse Assembly	746	7.5	0.06	120	89.52	0.8	1100	0
BATHROOMS	N/A	421	0	0	0	0.00	0.8	350	0
CORRIDORS	Corridors	139	0	0.06	0	0.00	0.8	125	0
STORAGE	Storage	19	0	0.12	0	0.00	0.8	0	0
	N/A	0	0	0	0	0.00	0.8	0	0
k-12 School?		No		0.813818		0.3		5	
Uncorrected Intake Outdoor Air Intake Percent of Unit Air		93 cfm		310 cfm		20%			

ELECTRIC UNIT HEATER SCHEDULE			
MARK	MFG / MODEL #	HEATER	NOTES
		KW	
UH-1	MARKEL/ H110H05003	5.0	240/1
		KW	
		AMPS	
		30.0	1-3

1.	BUILT-IN THERMOSTAT SWITCH.
2.	CORROSION RESISTANT
3.	

70°F	
75°F	
50%	
33.373 BTU/H	
28.677 BTU/H	
11.418 BTU/H	
10.384 BTU/H	

AIR COOLED DX UNIT HEATERS	
BOILER	N/A
TOTAL BOILER OUTPUT	N/A
CHILLER	N/A
TOTAL CHILLER CAPACITY	N/A

SEE SCHEDULES	
SEE SCHEDULES	

TO THE BEST OF MY KNOWLEDGE, THE MECHANICAL DESIGN FOR THIS BUILDING COMPLIES WITH MECHANICAL AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA STATE BUILDING CODE AND 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.

ELECTRIC UNIT HEATER SCHEDULE					
MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
		KW		KW	
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		KW		KW	
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MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
		KW		KW	
UH-1	MARKEL/ H110H05003	5.0	240/1	5.0	1-3

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MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
		KW		KW	
UH-1	MARKEL/ H110H05003	5.0	240/1	5.0	1-3

1.	BUILT-IN THERMOSTAT SWITCH.
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MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
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MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
		KW		KW	
UH-1	MARKEL/ H110H05003	5.0	240/1	5.0	1-3

1.	BUILT-IN THERMOSTAT SWITCH.
2.	CORROSION RESISTANT
3.	

ELECTRIC UNIT HEATER SCHEDULE					
MARK	MFG / MODEL #	HEATER	VOLT/ PH	HEAT	NOTES
		KW		KW	
UH-1	MARKEL/ H110H05003	5.0	240/1	5.0	1-3

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ELECTRIC UNIT HEATER SCHEDULE			
MARK	MFG / MODEL #	HEATER	VOLT/ PH
PRESCRIPTIVE ZONE 4A			
THERMAL ZONE		23.11°	23.11° BTU/H
EXTERIOR DESIGN CONDITIONS		91.17°	91.17° BTU/H
COOLING DESIGN DRY BULB		75.6° F	75.6° F
COOLING DESIGN WET BULB			
INTERIOR DESIGN CONDITIONS		70° F	70° F
HEATING DESIGN DRY BULB		75° F	75° F
COOLING DESIGN DRY BULB		50%	50%
COOLING RELATIVE HUMIDITY			
<u>HEATING LOAD:</u>		33,373 BTU/H	
<u>SENSIBLE HEATING LOAD:</u>		28,677 BTU/H	
<u>LATENT COOLING LOAD:</u>		11,418 BTU/H	
<u>HEATING LOAD (DESIGNED AT 50° HEATING DRY BULB)</u>		10,394 BTU/H	
<u>MECHANICAL SPACING CONDITIONING SYSTEM:</u>			
UNITARY			AIR COOLED DX
DESCRIPTION OF UNIT(S)			UNIT HEATERS
TOTAL BOILER OUTPUT		N/A	N/A
CHILLER		N/A	N/A
TOTAL CHILLER CAPACITY		N/A	N/A



MATTHEW'S LANDING

D.R. HORTON

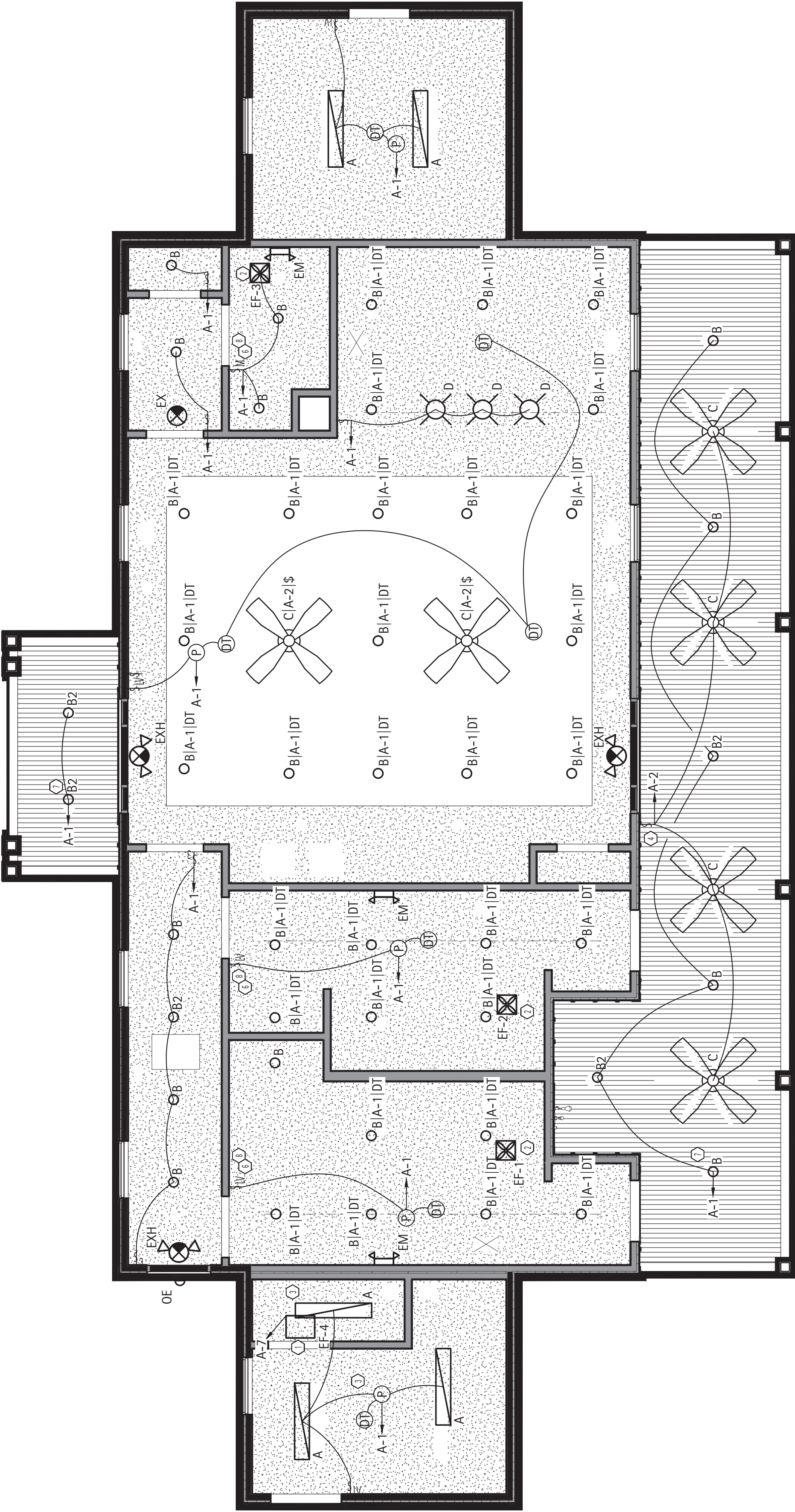
LILLINGTON, NC

LIGHT PLAN - SCALE: 1/4" = 1'-0" 1

LIGHTING PLAN HEX NOTES

- EXHAUST FAN SUSPENDED IN ATTIC TO BE WIRED FOR CONTINUOUS OPERATION. COORDINATE WITH M.C. PROVIDE LOCKABLE BREAKER AT PANEL.
- EC TO TIE EXHAUST FAN AND LIGHTING FIXTURES TO SAME MOTION SENSOR.
- PUMP ROOM AND CHEM. ROOM LIGHTS TO BE TIED TO SAME MOTION SENSOR.
- PROVIDE 60 MINUTE SWITCH FOR FAN. PROVIDE IN WEATHERPROOF ENCLOSURE.
- FLOOD LIGHT HAS BUILT IN MOTION DETECTION. AIM TOWARD POOL DECK.
- MOTION SENSOR TO BE SET ON 20 MINUTE TIMER.
- LIGHTING CIRCUIT CONTROLLED VIA PHOTOCELL LOCATED ON NORTH FACE OF BUILDING.
- BATHROOM SWITCHES TO BE KEYED

EMERGENCY BATTERY
BACK UP LIGHTS AT EXITS



NO.	REVISION	DATE

POWER PLAN HEX NOTES

1.

PROVIDE (2) 1" CONDUITS WITH CIRCUITS AS SHOWN TO POOL FOR POOL LIGHTS AND OTHER POOLSIDE EQUIPMENT. PROVIDE (2) 1" CONDUITS FROM POOL TO EXHAUST FAN SUSPENDED IN ATTIC. PROVIDE LOCKABLE BREAKER IN PUMP ROOM AND CAP REAR OUTSIDE ELECTRICAL ENCLOSURE. COORDINATE LOCATIONS WITH G.C. AND POOL CONTRACTOR. CIRCUIT TO BE CONTROLLED VIA TIME CLOCK AT PANEL. POOL LIGHTS TO BE WIRED VIA INTERMATIC JUNCTION BOX TRANSFORMER (MODEL PIBX52100). REFER TO PANEL SCHEDULE FOR CIRCUIT DESIGNATIONS.

2.

AREA IS CORROSIVE ENVIRONMENT PER NEC 680.14.

3.

PROVIDE POWER TO SHUNT TRIP BREAKER FOR DISCONNECTING PUMP. PUMP AND EXHAUST FAN MUST HAVE SEPARATE GFCI/MP. PROVIDE GFCI BREAKER IN PUMP ROOM. MUST HAVE NEMA 4X RATED ENCLOSURE. COORDINATE EXACT LOCATION AND SPEC. WITH G.C. AND POOL CONTRACTOR BEFORE BEGINNING WORK. VERIFY EXACT FLA AND MOCF WITH EXACT PUMP MODEL. FINAL CONNECTIONS BY E.C.

4.

PROVIDE POWER TO EMERGENCY PHONE RECEPTACLE. FIELD VERIFY LOCATION WITH LOCAL A.H.I.

5.

PROVIDE EMERGENCY "PUSH IN" POWER OFF SWITCH FOR EXHAUST FAN. PROVIDE 60 MINUTE SWITCH. WIRE TO SHUNT TRIP BREAKER IN PUMP ROOM (HEX 3).

6.

WATER HEATER DISCONNECT LOCATED ABOVE CEILING.

7.

FLUSH MOUNT JUNCTION BOX FOR UNIT HEATER.

8.

E.C TO COORDINATE WITH POOL CONTRACTOR TO ENSURE A GFCI/WEATHER PROOF RECEPTACLE IS WITHIN 20' OF EDGE OF POOL (BUT NO CLOSER THAN 6") AS REQUIRED BY NEC 680.22(A)(1). PROVIDE ON CIRCUIT 3 IN PANEL A.

9.

RECEPTACLE IN HOTBOX FOR FREEZE PROTECTION. VERIFY EXACT LOCATION OF HOTBOX WITH UTILITY PLANS BY OTHERS.

10.

EC TO COORDINATE WITH PC FOR HEAT TRACE ON COLD WATER SUPPLY LINES. USE FREE CIRCUITS IN PANEL A.

11.

TV RECEPTACLE MOUNTED @ 72" A.F.F. VERIFY EXACT LOCATION/MOUNTING HEIGHT WITH OWNER/ARCHITECT.

12.

EC TO CONFIRM LOCATION OF FLOOR OUTLET WITH OWNER PRIOR TO SLAB INSTALLATION.

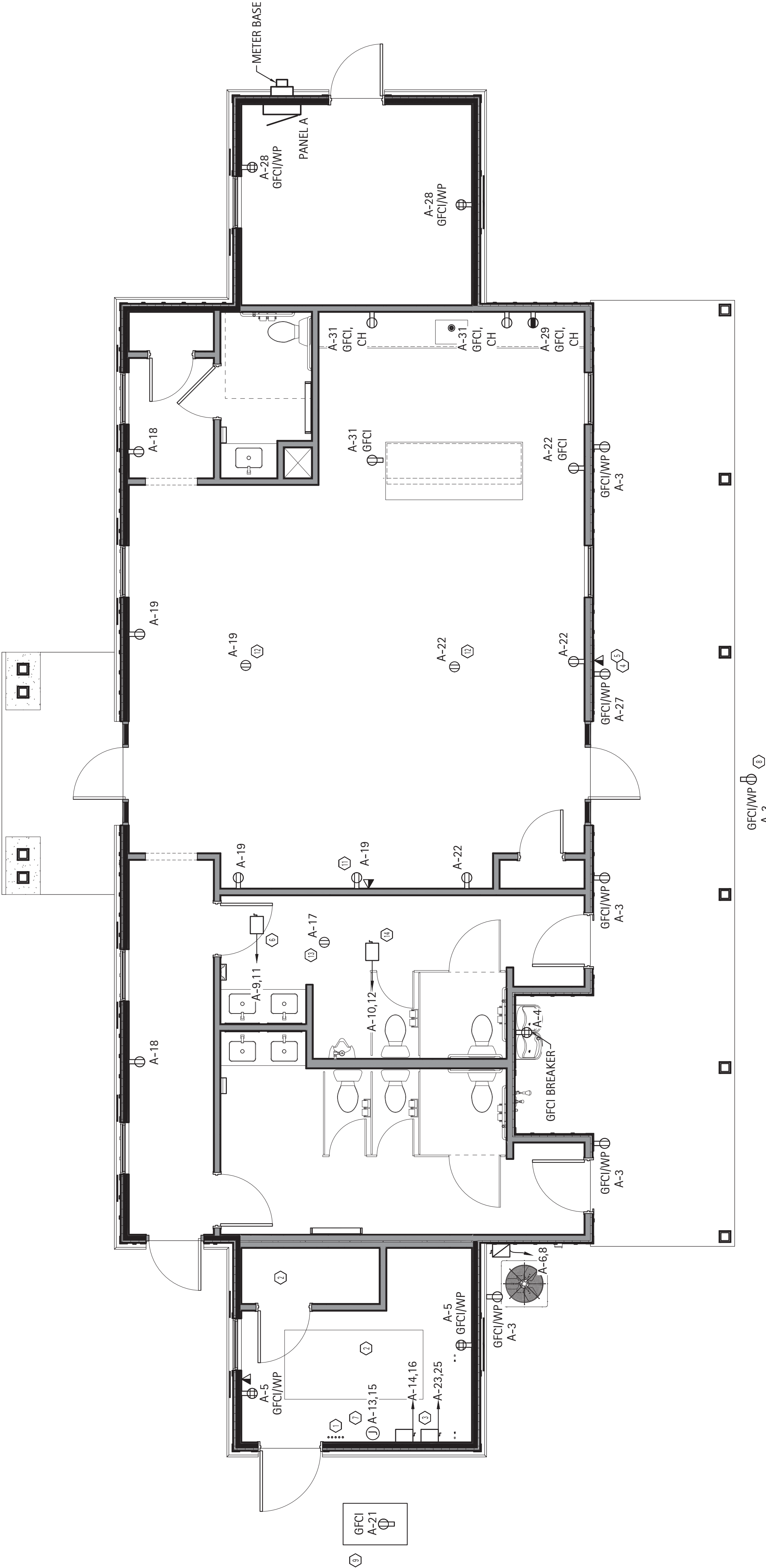
13.

SERVICE RECEPTACLE ABOVE CEILING FOR AIR HANDLER. EC TO COORDINATE EXACT LOCATION WITH MC AND GC.

14.

AIR HANDLER DISCONNECT LOCATED ABOVE CEILING.

POWER PLAN - SCALE: 1/4" = 1'-0" 2





MATTHEWS LANDING
DR HORTON
LILLINGTON, NC

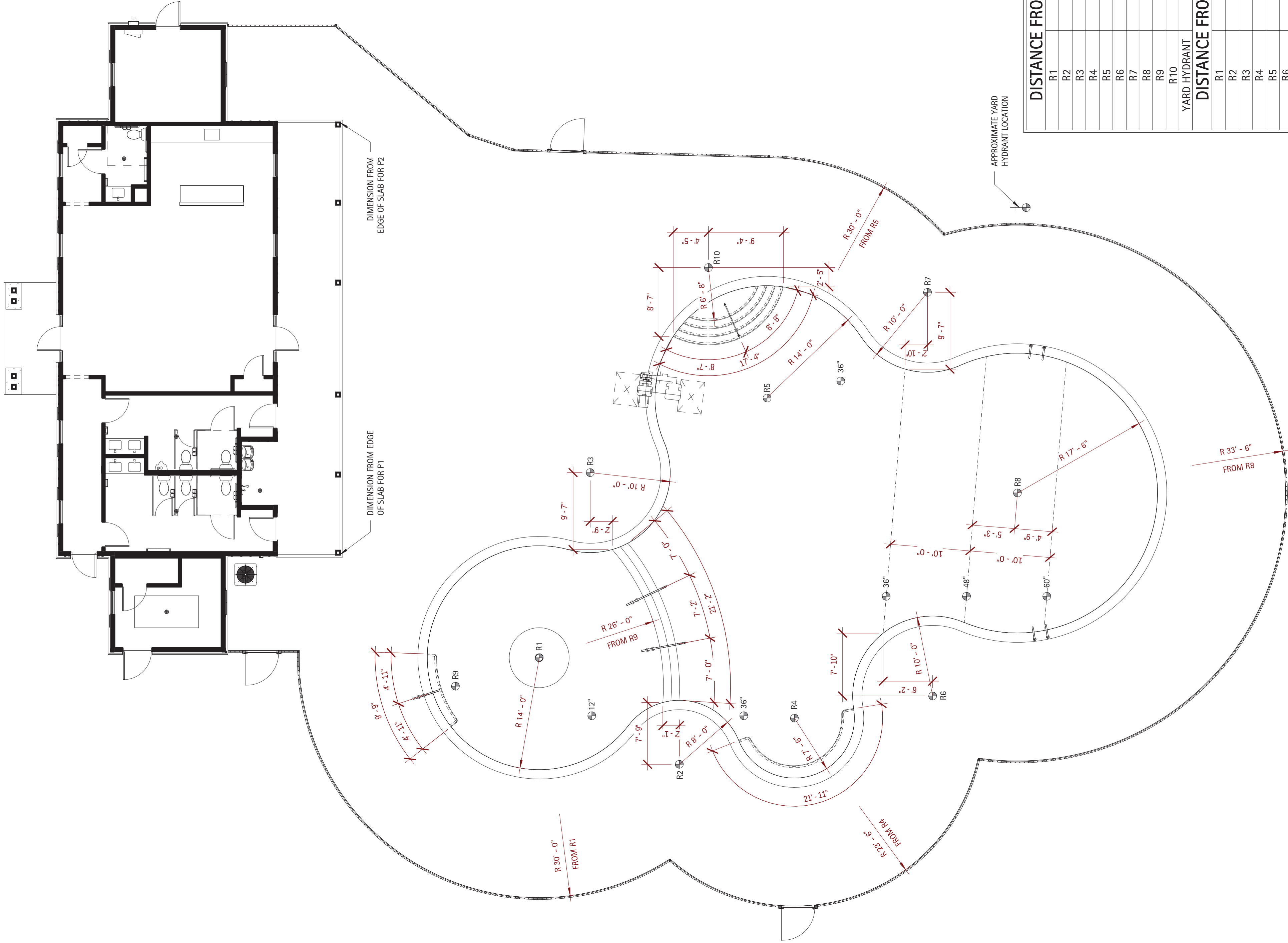
NO.	REVISION	DATE

PROJECT #:	2025004
DATE ISSUED:	03/14/2025
DRAWING BY:	JVD
CHECKED BY:	JLH
100% BEE.	

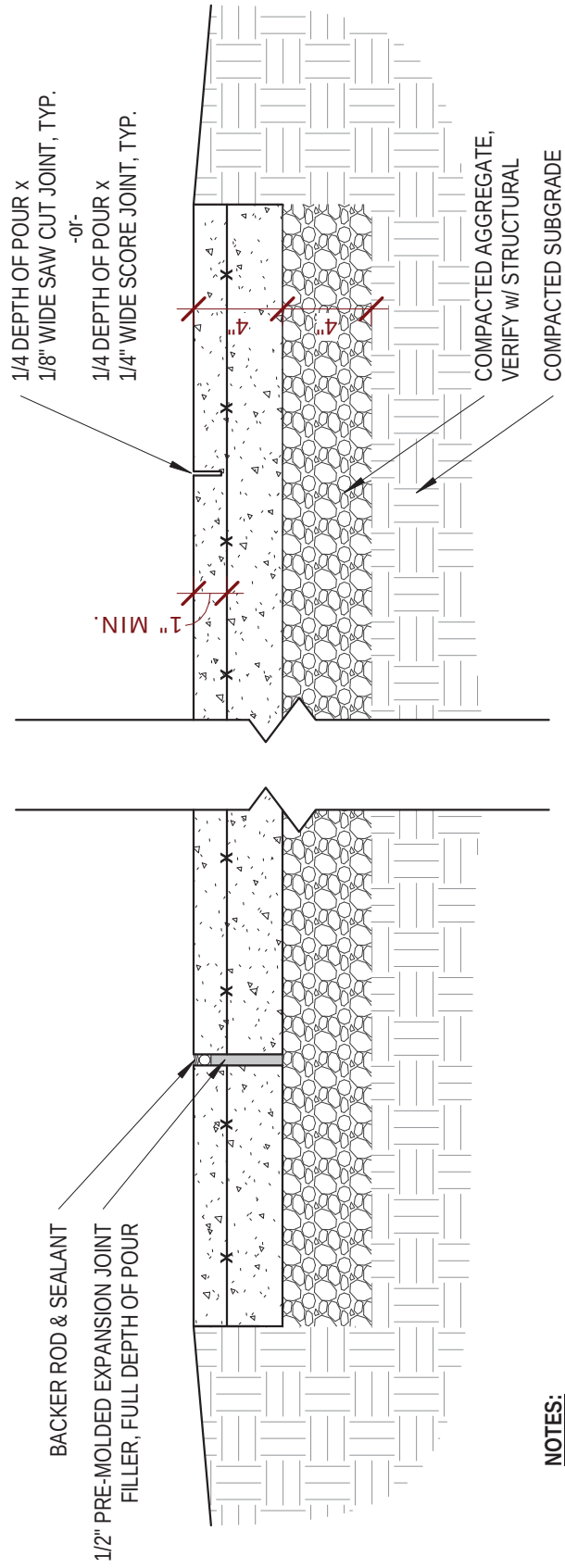
CONTROL
JOINT &
DIMENSION

SP1.0

DISTANCE FROM P1	
R1	28' 1"
R2	49' 10"
R3	32' 11"
R4	60' 4"
R5	56' 10"
R6	76' 2"
R7	80' 5"
R8	85' 0"
R9	21' 11"
R10	58' 4"
YARD HYDRANT	96' 1"
DISTANCE FROM P2	
R1	71' 5"
R2	90' 9"
R3	53' 9"
R4	93' 8"
R5	63' 6"
R6	103' 1"
R7	76' 5"
R8	96' 6"
R9	71' 11"
R10	49' 6"
YARD HYDRANT	86' 5"



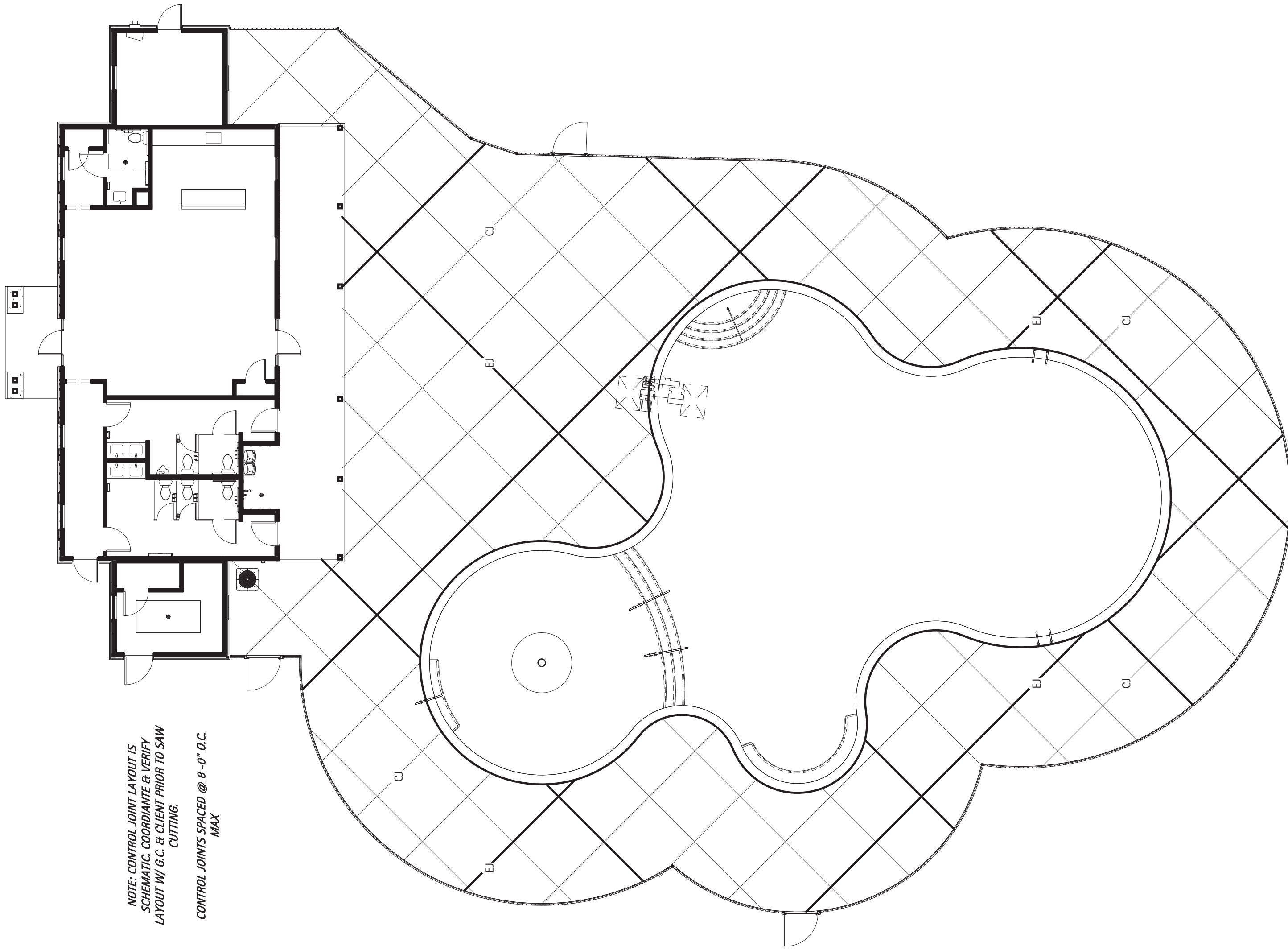
1 Pool Dimension Plan
SP1.0 1/8" = 1'-0"



NOTES:

- ALL JOINTS TO BE CUT W/ WET WALK BEHIND SAW TO ENSURE ALL CUTS ARE PERPENDICULAR W/ FACE OF CONCRETE.
- MAXIMUM CONTROL JOINT SPACING SHALL BE 10 FT. IN EACH DIRECTION UNLESS SHOWN OTHERWISE ON PLAN. SEE STRUCT.
- PROVIDE EXPANSION JOINT WHERE SLABS ARE POURED AGAINST VERTICAL SURFACES AND/OR DIFFERENT PAVING MATERIALS AND AS SPECIFIED ON PLANS OR 25'-0" MAX O.C.

2 Detail - Typ Pool Control Joint
SP1.0 1 1/2" = 1'-0"



3 Pool Control Joint Plan
SP1.0 3/32" = 1'-0"



MATTHEWS LANDING
DR HORTON
LILLINGTON, NC

NO.	REVISION	DATE

PROJECT #:	2025004
DATE ISSUED:	03/14/2025
DRAWING BY:	JVD
CHECKED BY:	JLH
100% E&P	

PIPING &
ELECTRICAL
PLAN

SP3.0

POOL EQUIPMENT SCHEDULE

TAG	COUNT	MANUFACTURER	MODEL	COMMENTS
1	2	PENTAIR	XFEET-20 (022024)	5 HP SELF-PRIMING PUMP W/ STRAINER BASKET + EXTRA BASKET
2	2	PENTAIR	PN 263080 - 140316	FILL/LOVE 2" HIGH RATE PUSH ROLL BACKWASH VALVE
3	2	PENTAIR	TR-140C	38" DIA HIGH RATE SAND FILTER W/ 7.06 SF OF MEDIA
4	1	PENTAIR	HC3315	HIGH CAPACITY CHLORINE/BROMINE FEEDER
5	2	BLUE-WHITE	F-30300P	3" VARIABLE AREA FLOW METER
6	4	AQUASTAR	WAV12VR101 W/ FBS-50-812-4	12"x12" VGB SUCTION OUTLET COVER W/ A.S.A. MFG FIBERGLASS SUMP
7	1	AQUASTAR	HVC101	SELF-CONTAINED HYDROSTATIC RELIEF VALVE
8	8	AQUASTAR	SKR101	WHITE COMMERCIAL GRADE SKIMMER
9	2	AQUASTAR	ESI022SI2001 W/ VLK15101	VACUUM LINE FITTING W/ LOCK CAP
10	1	AQUASTAR	GDD101	WHITE COMMERCIAL OVERFLOW DRAIN
11	14	AQUASTAR	ESI022SI2001 W/ 8101	DIRECTIONAL WALL RETURN INLET
12	2	AQUASTAR	ESI022SI2001 W/ BP101	FLOOR RETURN INLET W/ BUBBLER PLATE
13	1	AQUASTAR	AFB101	FILLSTAR- AUTOFILL LINE - WHITE
14	1	NAT. STRUCT.	1800-17-96	MUSHROOM SPRAY FOUNTAIN
15	1	PENTAIR	602104	190W EQUIVALENCY GLOBRITE WHITE LED LIGHT
16	5	PENTAIR	602145	300W EQUIVALENCY INTELLIBRITE WHITE LED LIGHT
17	2	INTERMATIC	PJB4175	4 LIGHT CONNECTION POOL & SPA JUNCTION BOX
18	1	SR SMITH	DMS-101B-MG	MARINE GRADE DECK MOUNTED HANDRAIL - SHORT
19	2	SR SMITH	DMS-102B - MG	MARINE GRADE DECK MOUNTED HANDRAIL - STANDARD
20	1	SR SMITH	3HR-4	MARINE GRADE 3-BEND ADA HANDRAIL
21	2	SR SMITH	10056-MG	MARINE GRADE COMMERCIAL LADDER
22	1	SR SMITH	MULTI-LIFT	ADA COMPLIANT MULTI-LIFT

PUMP FLOW PIPE SIZING

CIRCULATION:
XFEET-20 PUMP FLOW AT 65 FT OF WATER IS
210 GPM, WITH SPECIFIED:
4" MAIN DRAIN PIPING VELOCITY IS 5.29 FPS.
4" SKIMMER PIPING VELOCITY IS 5.29 FPS.
3" RETURN PIPING VELOCITY IS 9.12 FPS.

FEATURE:
XFEET-20 PUMP FLOW AT 65 FT OF WATER IS
210 GPM, WITH SPECIFIED:
4" MAIN DRAIN PIPING VELOCITY OF 5.29 FPS.
3" RETURN PIPING VELOCITY IS 9.12 FPS.

UNDERWATER LIGHTING DATA

MAIN POOL AREA: 3,182 SQFT.
3,182 SF x 0.5 WATTS = 1,591 WATTS

LIGHTING PROVIDED (12V LED EQ)
1 GLOWBRITE @ 190 WATTS
5 INTELLIBRITE @ 300 WATTS

TOTAL LIGHTING PROVIDED
1,690 WATTS

CHEMICAL STORAGE DATA

CHEMICAL STORAGE REQUIREMENTS FOR A 70,151 GALLON POOL ARE:

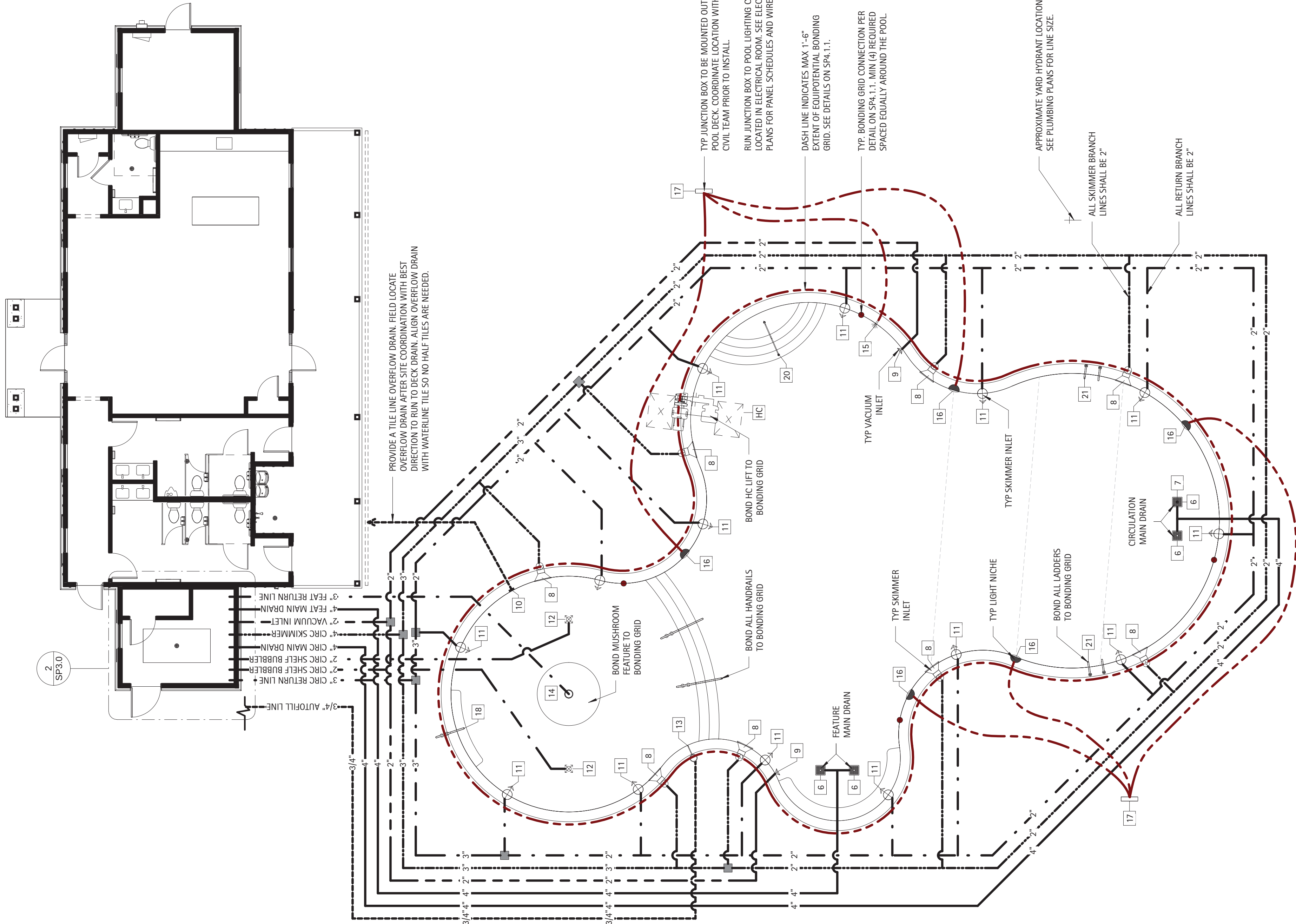
5 SF FOR FIRST 10,000 GALLONS OF POOL +
+1 SF FOR EACH ADDITIONAL 3,000 GALLONS OF POOL UP TO
100 SF OF STORAGE

+21 SF (1 SF PER 3,000)[60,151/3,000 = 20.05]

POOL REQUIRES A MIN OF 26 SF FOR CHEMICAL STORAGE
-SEE BUILDING PLANS BY OTHERS FOR EXACT LAYOUT- 26 SF PROV.
-SEE DETAIL ON SP4.0.1. FOR CHEMICAL ROOM SHELVING w/ QUANTITIES

MAIN POOL DATA

POOL DIMENSIONS:	61'-6" X 94'-1" OVERALL IRREGULAR SHAPE.
POOL DEPTHS:	12" SHELF W/ 3'-5"
POOL VOLUME:	70,151 GALLONS
SURFACE AREA:	3,182 SQFT.
PERIMETER:	264 LF
COPING:	BULLNOSE INDEPENDENT
CIRC REQ. FLOW:	195 GPM @ 65 TDH
CIRC DESIGN FLOW:	210 GPM @ 65 TDH
FEAT DESIGN FLOW:	210 GPM @ 65 TDH
SHELL MATERIAL:	4000 PSI SHOTCRETE
INTERIOR FINISH:	QUARTZ PLASTER
BATHER LOAD:	266 PERSONS
BACKWASH TO:	SANITARY SEWER
WATER SOURCE:	IN-LINE AUTOFILL
PIPE SIZING:	
CIRC MAIN DRAINS:	(2) 4" SCH 40 PVC
FEAT MAIN DRAINS:	(2) 4" SCH 40 PVC
SKIMMERS:	(8) 4" SCH 40 PVC
VACUUM LINE:	(2) 2" SCH 40 PVC
CIRC INLETS:	(16) 3" SCH 40 PVC
FILTER TYPE:	HIGH RATE SAND
SIZE PROVIDED:	2 @ 7.06 SF (EA) = 14.12
MEDIA CIRC. RATE:	15 GPM/SF
BACKWASH RATE:	6 HOURS

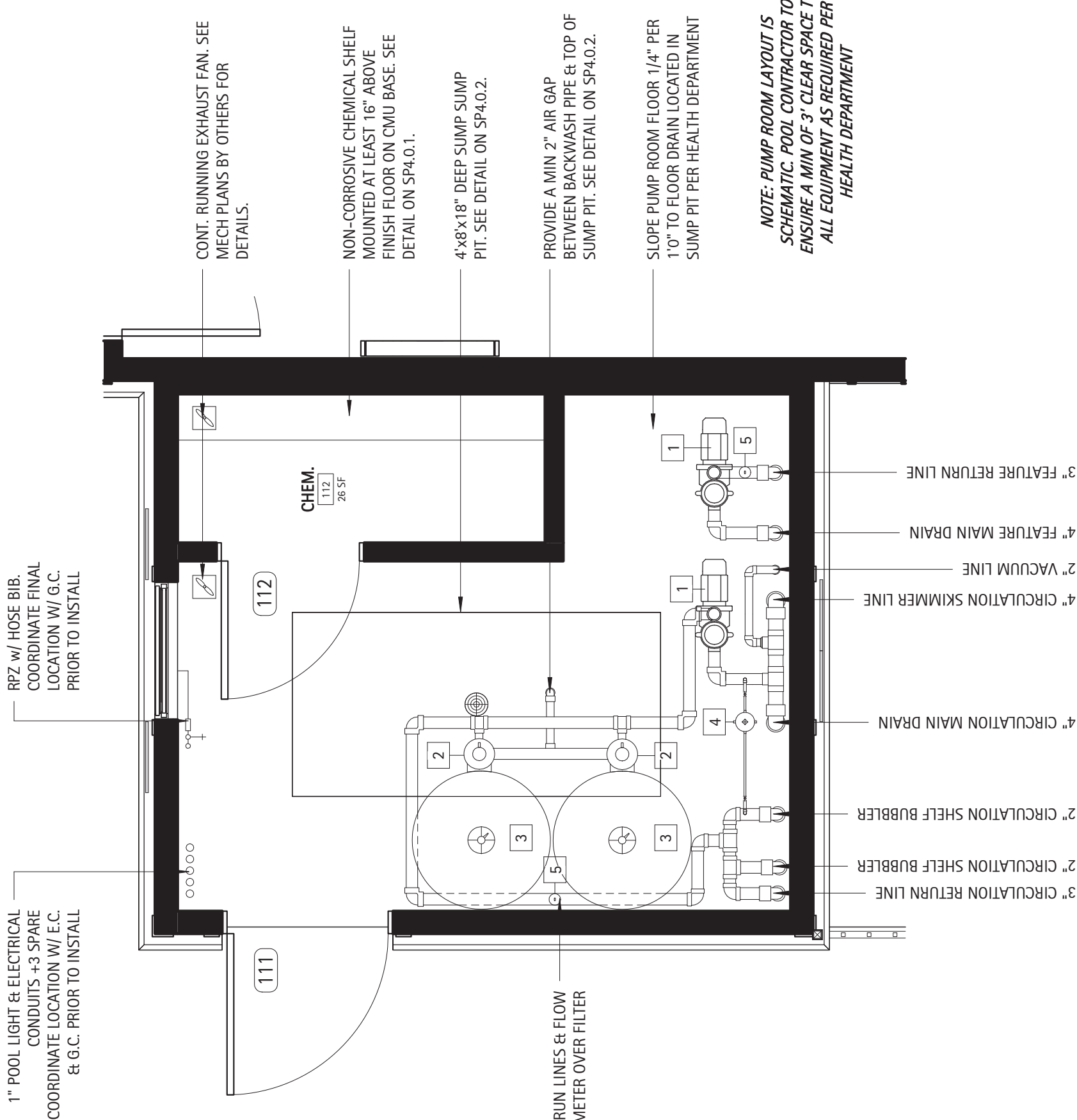


Overall Piping & Electrical Plan

1/8" = 1'-0"

2/3/8" = 1'-0"

Enlarged Pump Room Plan



NOTE: PUMP ROOM LAYOUT IS
SCHEMATIC ONLY. SEE
SCHEMATIC FOR EQUIPMENT
TO ENSURE A MIN OF 3' CLEAR SPACE TO
ALL EQUIPMENT AS REQUIRED PER
HEALTH DEPARTMENT



GLOBRITE®

POOL AND SPA LED LIGHTS



AWAZING, BRILLIANT WHITE LIGHT THAT MAKES POOL DESIGNS COME ALIVE

Add the magic and vibrancy of GLOBRITE White LED Lights to any pool take possession of the night. These brilliant white lights are available in three sizes, 15 W, 35 W and 100 W. GLOBRITE White LED Lights highlight your pool's form and finishes, such as colored plaster, aggregates, public ceramics, stone tile and glass tile. Natural colors and textures are enhanced and spring to life. Plus, you can choose from three adjustable brightness levels to set the perfect mood.

Key Features LED array Creates powerful illumination with remarkable energy efficiency. 15 W usage Delivers the equivalent of 80 W of incandescent light.	Optimized brightness GLOBRITE White models offer three brightness levels: 100%, 75% or 50% brightness. Added savings With extended service life and
---	---

Multiple niches
Available for concrete, vinyl and fiberglass.

Design flexibility
Compact design allows for innovative placement near steps, water features, swim-outs and more. Install in water or on pool deck.

FILL STAR® WATER LEVEL CONTROL SYSTEM FOR POOLS AND SPAS

FEATURES

- Easy to install
- Overflow protection and adjustable prevents
- Uses the same size lid and collar as AquaStar skimmers
- Includes 2" to 1 1/2" PVC adapter
- 1/4" PVC plug included if overflow is 1 1/2" or smaller
- 1/4" PVC water supply inlet
- Valve is made of high-strength engineered resin
- The float is injection molded and the thread is pre-molded
- No variation glue needed
- Float thread is 1/2" NPT
- 1 per case

Durable and reliable autofill

Part # AFBox

Also available float only part # AFB

STANDARD COLORS:

- ☐ AFB101 - White
- ☐ AFB102 - Black
- ☐ AFB103 - Light Gray
- ☐ AFB105 - Dark Gray
- ☐ AFB108 - Tan

Also available without lid and collar

part #AFBL

Also available lid only

part #AF

1. AquaStar Box, Closed
2. AquaStar Box, Open
3. Round Skimmer Collar
4. 1/4" PVC Plug
5. 1/4" PVC Plug
6. 1/4" PVC Plug
7. 1/4" PVC Plug

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AQUASTAR
POOL PRODUCTS

BUBBLER PLATE



Compatibility, durability, and performance

FEATURES

- Available in six standard colors.
- No exposed components.
- Install flush with side/bottom of pool or inside floor with side/bottom of pool or inside floor.
- Fits into most standard 1/2" female pipe thread.
- 2501 per case

ENGINEERING DATA

GPM	Flow Coefficient (Cv) 1/2"	Head Loss (ft)
Velocity (ft/s)		
5.0	1.4	2.4
10.0	2.8	9.6
15.0	4.2	21.6
20.0	5.6	38.4
25.0	7.0	57.6

Part # BPxxx

STANDARD COLORS

- ☐ BP101 - White
- ☐ BP102 - Black
- ☐ BP103 - Light Gray
- ☐ BP105 - Dark Gray
- ☐ BP108 - Tan

P 877-768-2717 F 877-726-POOL Outside the US: P - 1-949-336-1940 F - 1-949-336-1940
info@aquastarpoolproducts.com www.aquastarpoolproducts.com CS10-0224

TAG 8 - SKIMMER - SKR101 - WHITE COMMERCIAL GRADE SKIMMER

TAG 12 - FLOOR RETURN INLET - BP101 - 5 HP HIGH EFFICIENCY PUMP

TAG 10 - OVERFLOW DRAIN - GDD101 - COMMERCIAL OVERFLOW DRAIN

TAG 14 - MUSHROOM FEATURE - 1800-17-96 - MUSHROOM SPRAY FEATURE

TAG 9 - VACUUM INLET - ES1022S|2001 W/ VLK15T01 - VACUUM LINE FITTING W/ LOCK CAP

TAG 13 - AITOEIII - AEB101 - EII STAR-AITOEIII INF - WHITE

TAG 8 - SKIMMER - SKR101 - WHITE COMMERCIAL GRADE SKIMMER

TAG 12 - FLOOR RETURN INLET - BP101 - 5 HP HIGH EFFICIENCY PUMP

TAG 11 - WALL RETURN INLET - 8101 - DIRECTIONAL WALL RETURN INLET

TAG 15 - LIGHTING - 602104 - 190W EQUIVALENCY GLOBBITE WHITE LED LIGHTS

